LG Electronics Inc.

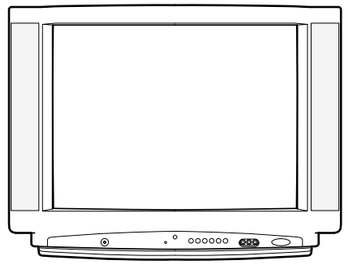
website:http://biz.LGservice.com
e-mail:http://www.LGEservice.com/techsup.html

# COLOR TV
# SERVICE MANUAL

**CHASSIS : MC-007A**

## MODEL:CE/CL-28H86T

**CAUTION**
BEFORE SERVICING THE CHASSIS,
READ THE SAFETY PRECAUTIONS IN THIS MANUAL.



P/NO : 3828VD0077H

Apr.,2001
Printed in Korea

# CONTENTS


Contents ..... 2

Safety Precautions ..... 3

Specifications ..... 4

Control Descriptions ..... 5

Disassembly Instructions ..... 8

Adjustment Instructions ..... 9

Exploded View ..... 14

Exploded View Parts List ..... 15

Replacement Parts List ..... 16

SVC. Sheet .....

# SAFETY PRECAUTIONS

## IMPORTANT SAFETY NOTICE

Many electrical and mechanical parts in this chassis have special safety-related characteristics. These parts are identified by ⚠ in the Schematic Diagram and Replacement Parts List.
It is essential that these special safety parts should be replaced with the same components as recommended in this manual to prevent X-RADIATION, Shock, Fire, or other Hazards.
Do not modify the original design without permission of manufacturer.

### General Guidance

An **Isolation Transformer should always be used** during the servicing of a receiver whose chassis is not isolated from the AC power line. Use a transformer of adequate power rating as this protects the technician from accidents resulting in personal injury from electrical shocks.

It will also protect the receiver and it's components from being damaged by accidental shorts of the circuitary that may be inadvertently introduced during the service operation.

If any fuse (or Fusible Resistor) in this TV receiver is blown, replace it with the specified.

When replacing a high wattage resistor (Oxide Metal Film Resistor, over 1W), keep the resistor 10mm away from PCB.

Keep wires away from high voltage or high temperature parts.

Due to high vacuum and large surface area of picture tube, extreme care should be used in **handling the Picture Tube**. Do not lift the Picture tube by it's Neck.

### X-RAY Radiation

**Warning:**

The source of X-RAY RADIATION in this TV receiver is the High Voltage Section and the Picture Tube.
For continued X-RAY RADIATION protection, the replacement tube must be the same type tube as specified in the Replacement Parts List.

To determine the presence of high voltage, use an accurate high impedance HV meter.

Adjust brightness, color, contrast controls to minimum.
Measure the high voltage.
The meter reading should indicate
23.5 ¡ 1.5KV: 14-19 inch, 26 ¡ 1.5KV: 19-21 inch,
29.0 ¡ 1.5KV: 25-29 inch, 30.0 ¡ 1.5KV: 32 inch
If the meter indication is out of tolerance, immediate service and correction is required to prevent the possibility of premature component failure.

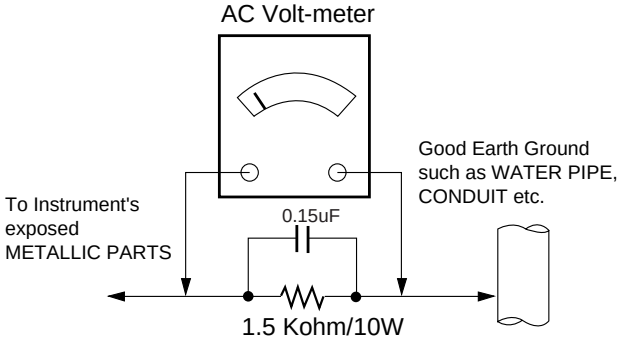
**Before returning the receiver to the customer,**

always perform an **AC leakage current check** on the exposed metallic parts of the cabinet, such as antennas, terminals, etc., to be sure the set is safe to operate without damage of electrical shock.

**Leakage Current Cold Check(Antenna Cold Check)**
With the instrument AC plug removed from AC source, connect an electrical jumper across the two AC plug prongs. Place the AC switch in the on positioin, connect one lead of ohm-meter to the AC plug prongs tied together and touch other ohm-meter lead in turn to each exposed metallic parts such as antenna terminals, phone jacks, etc.
If the exposed metallic part has a return path to the chassis, the measured resistance should be between 1MΩ and 5.2MΩ.
When the exposed metal has no return path to the chassis the reading must be infinite.
An other abnormality exists that must be corrected before the receiver is returned to the customer.

**Leakage Current Hot Check** (See below Figure)
Plug the AC cord directly into the AC outlet.
**Do not use a line Isolation Transformer during this check.**
Connect 1.5K/10watt resistor in parallel with a 0.15uF capacitor between a known good earth ground (Water Pipe, Conduit, etc.) and the exposed metallic parts.
Measure the AC voltage across the resistor using AC voltmeter with 1000 ohms/volt or more sensitivity.
Reverse plug the AC cord into the AC outlet and repeat AC voltage measurements for each esposed metallic part. Any voltage measured must not exceed 0.75 volt RMS which is corresponds to 0.5mA.
In case any measurement is out of the limits sepcified, there is possibility of shock hazard and the set must be checked and repaired before it is returned to the customer.

**Leakage Current Hot Check circuit**



# SPECIFICATIONS

**Note :** Specification and others are subject to change without notice for improvement.

- **Video input system:**
  PAL-B/G, D/K, I/I
  SECAM-B/G, D/K/L/L'
  NTSC M
  NTSC 4.43(AV)

- **Intermediate Frequency (Unit : MHz)**
  VISION IF : 38.9MHz,33.9MHz(SECAM-L')
  COLOR IF : 34.47MHz(4.43)
  35.32MHz(3.58) : NTSC-M
  ( VIF-4.25000MHz / VIF-4.40625MHz ): SECAM
  SOUND IF : 33.4MHz (B/G)
  32.9MHz (I/I)
  32.4MHz (D/K,L)
  34.4MHz (M)
  40.4MHz (L')

- **Power requirement :** 110~240V, 50/60Hz
- **Power consumption :** 100W
- **CPT :** True Flat CPT(Flatron)

- **Tuning range**

| Band | For TV | | | | For CATV |
|---|---|---|---|---|---|
| | B/G | D/K | I/I | NTSC | |
| VHF-Low | Ch2-4 | Ch1-5 | | Ch2-13 | S1'-S3', S1 |
| VHF-High | Ch5-12 | Ch6-12 | Ch4-13 | | S2-S10, S11-S20 |
| Hyper | | | | | S21-S41 |
| UHF | Ch21-69 | | | Ch14-69 | |

- **Tuning system :**
  FVS
  100 Programme memory
  200 Programme memory(For CHINA)

- **Antenna input impedance :** VHF/UHF 75 ohm, unbalanced

- **OSD (On Screen Display) :** MENU Type

- **Voice coil impedance :** 8 ohm

- **Sound output :** 12W+12W
  Dual/Stereo : A2/NICAM(Option)

- **External connection :**
  Front or Side: Head Phone Jack, S-VIDEO in, A/V in :1 pair
  Back: Scart 1(Full) A/V in/out, Scart 2(Half)+Audio out A/V in/out

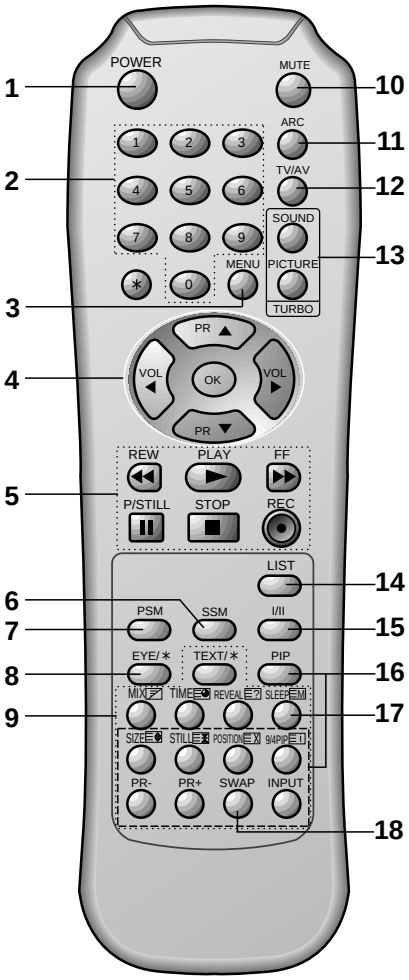
- **External In/Output**
  Audio-In:0.5Vrms±3db,over 10Kohm
  Audio-Out:0.5Vrms±3db,below 1Kohm
  Video-In/Out:1Vp-p±3db,75ohm
  R,G,B In:0.7Vp-p±3db

- **Feature :** Auto programme/Manual programme
  SVM (Scanning Velocity Modulation)
  Digital Eye
  Digital Comb Filter
  Auto Sleep
  Dynamic Focus
  Programme Editing
  PSM (Picture Status Memory)
  CTI
  Double Window Teletext (TOP/FLOF)
  Turbo Search, Picture & Sound
  ACMS
  ARC (Zoom 1/ZOOM 2, 16:9 ¡ê4:3)
  1 TUNER PIP(Double Window PIP)

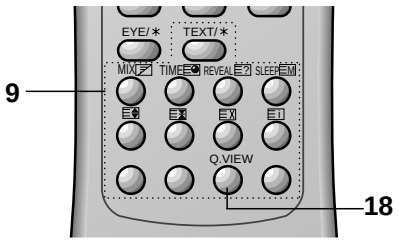
**Child Lock :** In the Lock On state the TV can only be operated by the Remote Controller.
If any button on the front panel is pressed, "Child Lock" is displayed on the screen but the button's function is not performed.
To cancel of this mode, select lock off with menu button on remote controller only.

# DESCRIPTION OF CONTROLS

All the functions can be controlled with the remote control handset. Some functions can also be adjusted with the buttons on the front panel of the set.




**(With teletext / PIP)**




**(With teletext / Without PIP)**

## Remote control handset

Before you use the remote control handset, please install the batteries. See the next page.

1. **POWER**
   switches the set on from standby or off to standby.

2. **NUMBER BUTTONS**
   switches the set on from standby or directly select a number.

3. **MENU**
   selects a menu.

4. **▲ / ▼ (Programme Up/Down)**
   selects a programme or a menu item.
   switches the set on from standby.
   **◄ / ► (Volume Up/Down)**
   adjusts the volume.
   adjusts menu settings.
   **OK**
   accepts your selection or displays the current mode.

5. **VCR BUTTONS (option)**
   control a LG video cassette recorder.

6. **SSM (Sound Status Memory)**
   recalls your preferred sound setting.

7. **PSM (Picture Status Memory)**
   recalls your preferred picture setting.

8. **EYE/∗ (option)**
   switches the eye function on or off.

9. **TELETEXT BUTTONS (option)**
   These buttons are used for teletext.
   For further details, see the ‘Teletext’ section.

10. **MUTE**
    switches the sound on or off.

11. **ARC (Aspect Ratio Control)**
    changes the picture format.

12. **TV/AV**
    selects TV or AV mode.
    clears the menu / text from the screen.
    switches the set on from standby.

13. **TURBO PICTURE / SOUND BUTTON**
    selects Turbo picture / sound.

**14. LIST**
displays the programme table.

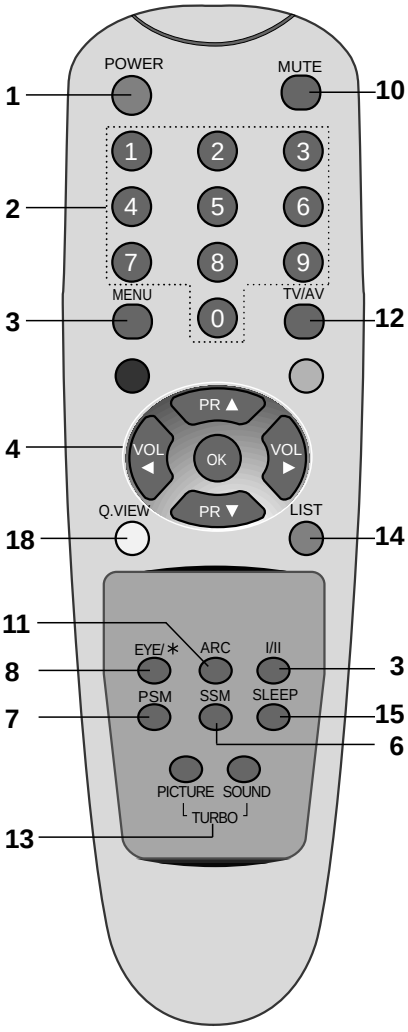
**15. I/II**
selects the language during dual language broadcast (option).
selects the sound output.

**16. PIP BUTTONS (option)**
**PIP**
switches the sub picture on or off.
**PR +/–**
selects a programme for the sub picture.
**SWAP**
alternates between main and sub picture.
**INPUT**
selects the input mode for the sub picture.
**SIZE**
adjusts the sub picture size.
**STILL**
freezes motion of the sub picture.
**POSITION**
relocates the sub picture in clockwise direction.
**9/4 PIP**
switches on or off the 9 or 4 sub pictures.

**17. SLEEP**
sets the sleep timer.

**18. SWAP** or **Q.VIEW**
returns to the previously viewed programme.

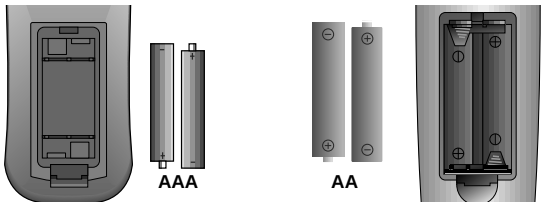
**COLOURED BUTTONS**
These buttons are used for teletext (only TELETEXT models) or programme edit.




**(Without teletext / PIP)**

## Battery installation

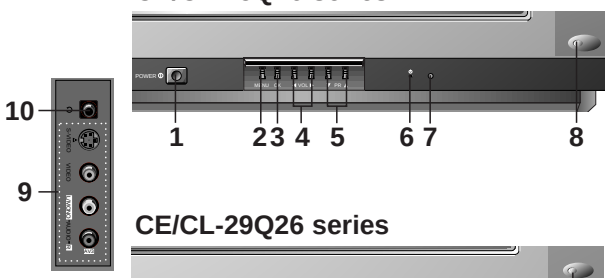
The remote control handset is powered by two AAA or AA type batteries. To load the batteries, turn the remote control handset over and open the battery compartment. Install two batteries as indicated by the polarity symbols ( ⊕ and ⊖ ) marked inside the compartment.



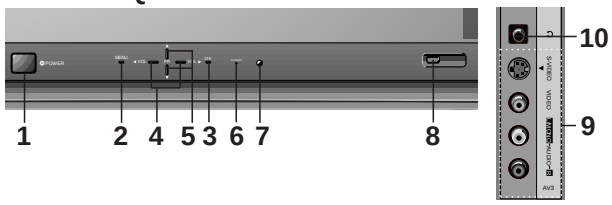

***Note :*** *To avoid damage from possible battery leakage, remove the batteries if you do not plan to use the remote control handset for an extended period of time.*

## Front panel

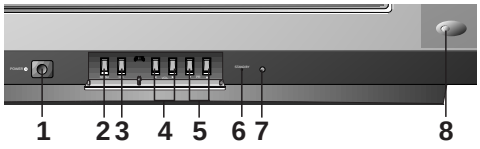
**CE/CL-25Q26 series**



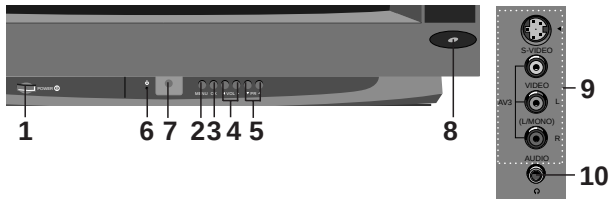

**CE/CL-29Q46 series**



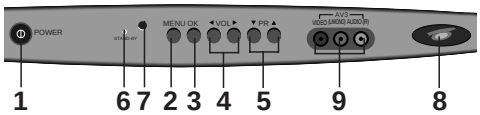

**CE/CL-29Q26 series**



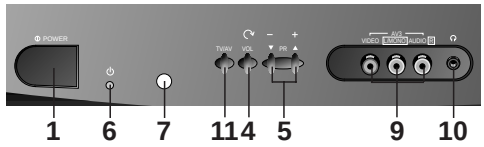

**CE/CL-25/29H46 series**




**CE/CL-25/29H36 series**




**CE/CL-28H86 series**




1. **MAIN POWER**
   switches the set on or off.

***Note** : In some models, one power line lives even when the main power is off.*

2. **MENU (option)**
   selects a menu.

3. **OK (option)**
   accepts your selection or displays the current mode.

4. **◄ / ► (Volume Up/Down)**
   adjusts the volume.
   adjusts menu settings.

   ↻ **(Function) (option)**
   selects volume, Eye, picture items or brief auto programme while the menus not display.

5. **▲ / ▼ (Programme Up/Down)**
   selects a programme or a menu item.
   switches the set on from standby.
   **+ / – (▲ / ▼) (option)**
   adjusts the function or selects a programme.
   switches the set on from standby.

6. **POWER/STANDBY INDICATOR**
   illuminates brightly when the set is in standby mode.
   dims when the set is switched on.

7. **REMOTE CONTROL SENSOR**

8. **EYE (option)**
   adjusts picture according to the surrounding conditions.

9. **AUDIO/VIDEO IN SOCKETS (AV3)**
   Connect the audio/video out sockets of external equipment to these sockets.

   **S-VIDEO/AUDIO IN SOCKETS (S-AV) (option)**
   Connect the video out socket of an S-VIDEO VCR to the **S-VIDEO** socket.
   Connect the audio out sockets of the S-VIDEO VCR to the audio sockets as in **AV3**.

10. **HEADPHONE SOCKET (option)**
    Connect the headphone plug to this socket.

11. **TV/AV (option)**
    selects TV or AV mode.
    clears the menu from the screen.
    switches the set on from standby.

# DISASSEMBLY INSTRUCTIONS

### Important note
This set is disconnected from the power supply through the converter transformer. An isolating transformer is necessary for service operations on the primary side of the converter transformer.

### Back Cabinet Removal
Remove the screws residing on the back cabinet and carefully separate the back cabinet from the front cabinet. (Fig. 2-1).

### CPT Removal
1. Pull out the CPT board from the CPT neck.
2. Place the front cabinet on soft material not to mar the front surface or damage control knobs.
3. Remove 4 screws securing the picture tube mounting brackets to the front cabinet.
4. Carefully separate CPT from the front cabinet.

### Chassis Assy Removal
Grasp both side of Frame and pull it backward smoothly.

### Speaker Assy Removal
1. Remove P1651 and P1652 connector from Main2 (Power/Def./ Sound-Amp) Board.
2. Remove respective 6 screws for speaker on the front cabinet. (Fig. 2-2).

### PICTURE TUBE HANDLING CAUTION
Due to high vacuum and large surface area of picture tube, great care must be exercised when handling picture tube. Always lift picture tube by grasping it firmly around faceplate.
NEVER LIFT TUBE BY ITS NECK! The picture tube must not be scratched or subjected to excessive pressure as fracture of glass may result in an implosion of considerable violence which can cause personal injury or property damage.

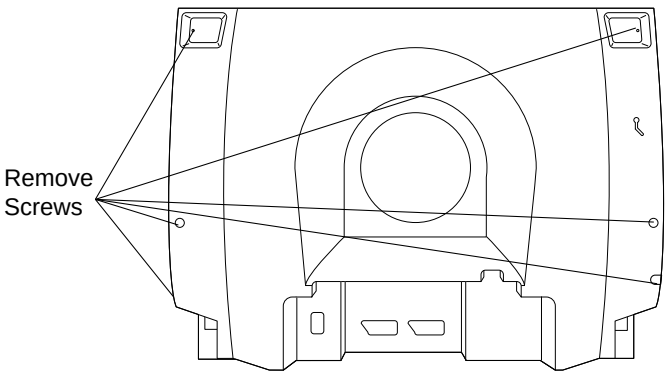



Fig. 2-1

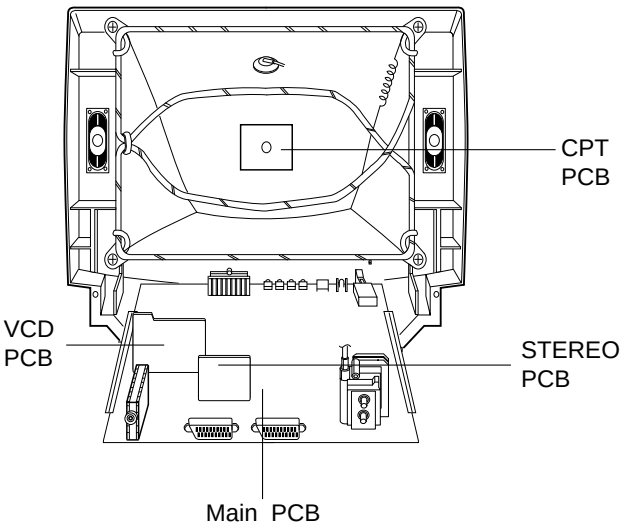



Fig. 2-2

# ADJUSTMENT INSTRUCTIONS

## ● Safety Precautions

1. It is safe to adjust after using insulating transformer between the power supply line and chassis input to prevent the risk of electric shock and protect the instrument.
2. Never disconnect leads while the TV receiver is on.
3. Don't short any portion of circuits while power is on.
4. The adjustment must be done by the correct appliances.
5. Unless otherwise noted, set the line voltage to 230Vac±10%, 50Hz.
5. The adjustment of TVshould be performed after warming up for 15 minutes.

## ● Test Equipment required

1. RF signal generator (with pattern generator)
2. DC Power Supply
3. Multimeter (volt meter)
4. Oscilloscope
5. Color analyzer

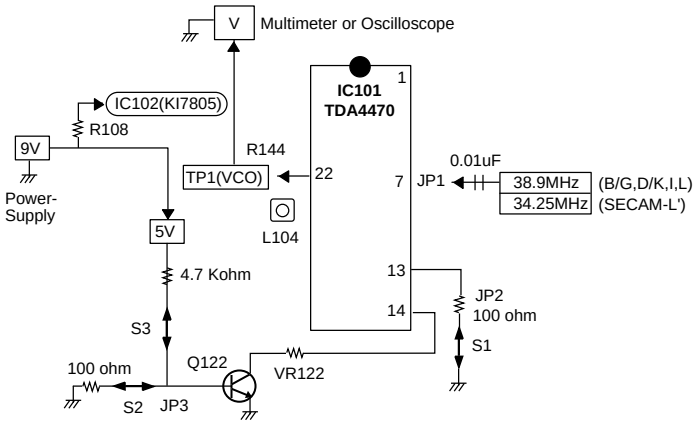



Fig. 1 : Connection Diagram of Equipment for PIF Adjustment

## ● PIF (Picture Intermediate Frequency) Adjustment

| | |
|---|---|
| **Test Point** | **: TP1** |
| **Adjust** | **: L104** |

1) Connect the measuring equipment to the Main Board as shown in Fig.1.
2) Set RF frequency and output level of RF SIGNAL GENERATOR as shown Table 1.
3) Turn off S1 and S3 and on S2.
4) Adjust L104 so that the DC voltage may be 2.4±0.05Vdc.

| System | Frequency | Modulation | Output level | Adjust |
|---|---|---|---|---|
| B/G,D/K/I,SECAM-L | 38.9MHz | OFF | 10mVp-p | L104 |
| SECAM-L' | 34.25MHz | OFF | 10mVp-p | VR122 |

(Table 1)

## ● L' VCO Adjustment (For SECAM-L' MODEL)

| | |
|---|---|
| **Test Point** | **: TP1** |
| **Adjust** | **: VR122** |

1) Connect the measuring equipment to the Main Board as shown in Fig.1.
2) Set RF frequency and output level of RF SIGNAL GENERATOR as shown Table 1.
3) Turn on S1,S3 and off S2.
2) Adjust VR122 so that the DC Voltage may be 2.4±0.05Vdc.

## ● RF AGC (Automatic Gain Control) Adjustment

| | |
|---|---|
| **Test Point** | **: TP 2(J15)** |
| **Adjust** | **: VR121** |

1) Input PAL-B/G 05 CH.
2) Connect Multimeter to TP2(J15),AGC adjustment point.
3) Adjust VR121 until the voltage of Multimeter becomes 2.5±0.1V.

## ● Screen Voltage Adjustment

| | |
|---|---|
| **Test Point** | **: CPT Face** |
| **Adjust** | **: Screen Control of FBT** |

1) Tune the RF Modulator to receive a PAL or SECAM signal.
2) Press MIX button on remote controller for Service to get into the Screen Adjust Mode.
3) Adhere the Color Analyzer on the White window of CPT face.
4) Adjust Screen Volume of FBT so that the luminance of White window is 12±1 FL.

## ● Focus Adjustment

| | |
|---|---|
| **Test Point** | **: Observing Display** |
| **Adjust** | **: Focus control of FBT** |

1) Tune the TV set to receive a digital pattern.
2) Adjust the upper Focus volume of FBT for the best focus of vertical line B.
3) Adjust the lower Focus volume of FBT for the best focus of area A.
4) Repeat above step 2) and 3) for the best overall focus.

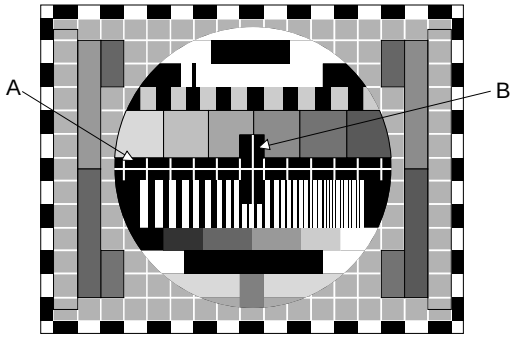



Fig. 2

## ● Deflection Data Adjustment (Line SVC-2)

**NOTE :** How to enter into the Line Service Mode with a remocon.

1.Power off.
2.Press the Red button.
3.Press the Green button.
4.Press the Yellow button.
5.Press the Cyan button.
6.Press the OK button.
7.Power On.

### 1. Preparation for Deflection Adjustment

1) At SVC mode, press the Yellow colored button the SVC remocon.
   And then,deflection data adjustment OSD(SVC2 mode) will be displayed.
2) Press Channel UP/DOWN button for desirous function Adjustment.
3) Press Volume UP/DOWN button to adjust the data.
4) Tune the TV set to receive a PAL B/G Digital pattern.

**VL (Vertical Linearity)**
Adjust so that the boundary line between upper and lower half is in accord with geometric horizontal center of the CPT.

**VA (Vertical Amplitude)**
Adjust so that the circle of a digital circle pattern may be located within the effective screen of the CPT.

**SC (Vertical "S" Correction)**
Adjust so that all distance between each horizontal lines are to be the same.

**VS (Vertical Shift)**
Adjust so that the horizontal center line of a digital circle pattern is in accord with geometric horizontal center of the CPT.

**HS (Horizontal Shift)**
Adjust so that the vertical center line of a digital circle pattern is in accord with geometric vertical center of the CPT.

**EW (Horizontal Width)**
Adjust to that a digital circle pattern looks like exact circle.

**EP (East-west Parabolar)**
Adjust so that middle portion of the outermost left and right vertical line looks like parallel with vertical lines of the CPT.

**EC (East-west Coner)**
Adjust so that the vertical line at every 4 corners of the screen looks like parallel with the vertical lines of the CPT.

**ET (East-west Trapezium)**
Adjust to make the length of top horizontal line same with it of the bottom horizontal line.

**POP (POP Position)**
Adjust until the distance between POP and main picture becomes about 1mm.

| Menu | Range | 29" Flat | 29" S-Flat |
|---|---|---|---|
| VS | 0600H~0900H | 07D2 | |
| VA | 0050H~00CFH | 0095 | |
| VL | 0025H~00BFH | 0001 | |
| SC | 0000H~009FH | 00D9 | |
| HS | 0000H~003FH | 001E | |
| EW | 0400H~0EFFH | 0A9D | |
| ET | 0700H~08FFH | 07FF | |
| EP | 06E0H~0840H | 0787 | |
| ES | 06A0H~0AFFH | 0815 | |
| EC | 0790H~08E0H | 0850 | |
| POP P | 0790H~08E0H | 000B | |

(Table 2)

## ● White Balance Adjustment.(LINE SVC 1)

**NOTE :** This adjustment should be performed after screen voltage adjustment.

1) Tune the TV set to receive an 100% white pattern.
2) Press the Yellow button on remote controller in the SVC Mode.
3) Press PSM (RED) button on remote controller. (Standard picture)
4) Press PR+ or PR- button for desirous function adjustment.
5) Adjust Low Light status of CR and CB with VOL+ or VOL- at CG:50 until X=268±8, Y=273±8.
6) Adjust High Light status of RG and BGB with VOL+ or VOL- at CG:370 until X=268±8, Y=273±8.
7) Repeat above step 5) and 6) until each status of High Light and Low Light for X=288±8, Y=295±8 with color analyzer(color temperature 9000°K).

| Menu | Range | DATA |
|---|---|---|
| CR | 0 ~ 511 | 50 |
| CG | 0 ~ 511 | 50 |
| CB | 0 ~ 511 | 50 |
| RG | 0 ~ 511 | 370 |
| GG | 0 ~ 511 | 370 |
| BG | 0 ~ 511 | 370 |

(Table 3)

## ● SVC Data & PSM,SSM Data.

**Table 1. ABL Data (LINE SVC-3)**

| Menu | Range | 29” Flat | 29” S-Flat |
|---|---|---|---|
| DVCO | | | |
| IBRM | 0~1FFH | 00C8 | |
| WDRM | 0~3FFH | 0190 | |
| BCLTH | 0~7FFH | 0065 | |
| BCLTM | 0~1FFH | 000B | |
| BCLGA | 0~1FFH | 0007 | |
| SVGA | | 0008 | |
| SVDEL | | 0005 | |
| SVD1 | | 0003 | |
| LDLY | | 0001 | |
| HBST | 0~01FF | 00F0 | |
| HBSO | 0~01FF | 0158 | |

**Table 2. SOUND PRE-SCALER (LINE SVC-4)**

| Menu | Range | DATA |
|---|---|---|
| FP | 0~127 | 0011 |
| NP | 0~127 | 0045 |
| SP | 0~127 | 001E |
| S1 VOL | 0~127 | 0042 |
| S2 VOL | 0~127 | 0042 |

**Table 3. PSM Data**

| Mode | STANDARD | DYNAMIC | MILD | GAME |
|---|---|---|---|---|
| CONTRAST | 90 | 100 | 60 | 50 |
| BRIGHT | 50 | 55 | 60 | 60 |
| COLOR | 50 | 60 | 40 | 40 |
| SHARPNESS | 50 | 60 | 40 | 30 |

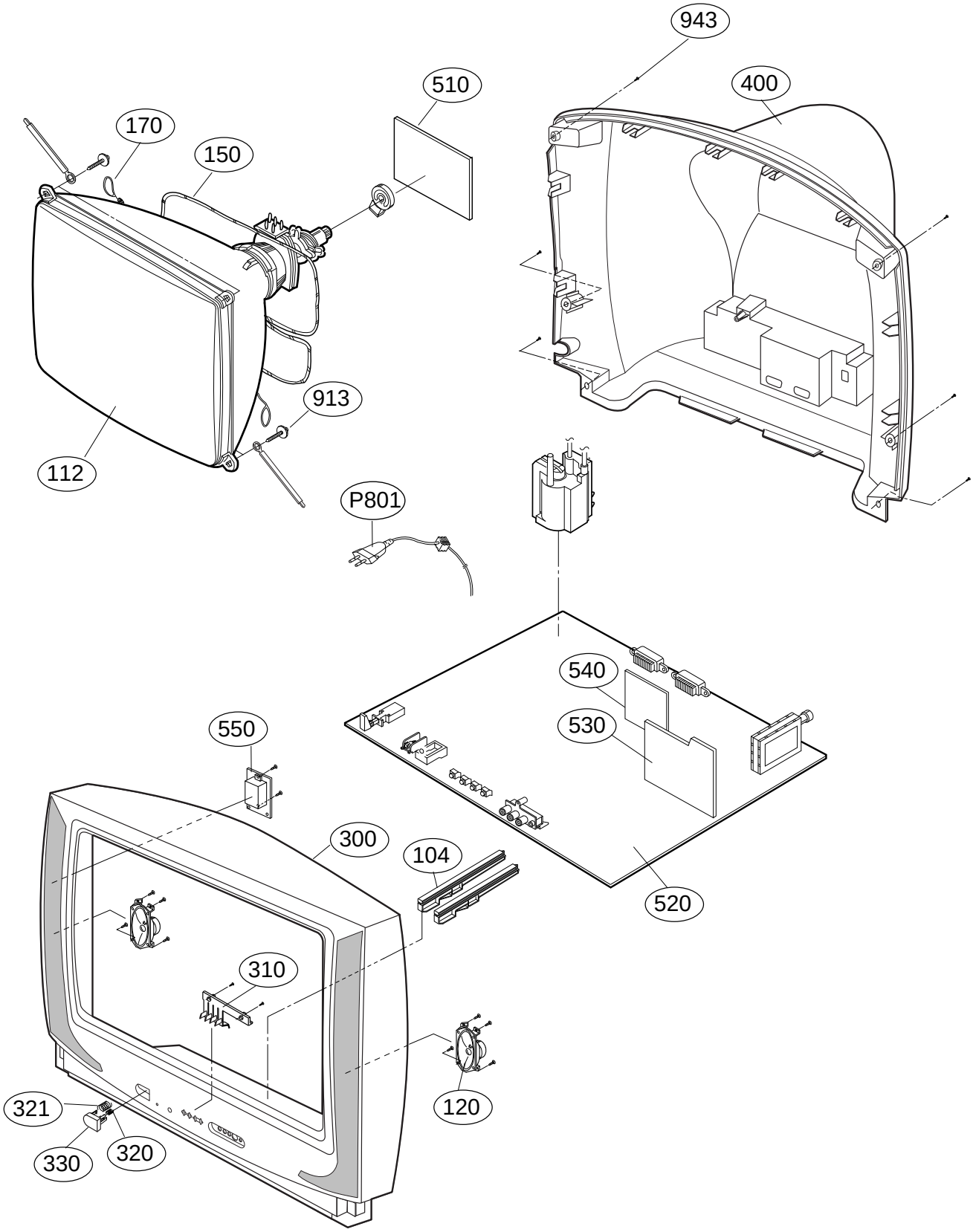
## ● OPTION Adjustment (LINE-SERVICE OPTION)

**Table 4. OPTION Function**

| Menu | OPTION | 1 | 0 |
|---|---|---|---|
| Option 1 | GAME | GAME | X |
| | TEXT | TEXT | X |
| | TOP | TOP | X |
| | ACMS | | Australia Only |
| | CH+AU | China,Australia | |
| | EYE | EYE | X |
| | TURBO | Turbo Search | X |
| | SCART | SCART | X |
| Option 2 | A2 ST | STEREO | X |
| | I II SV | I/II | X |
| | MONO | MONO | X |
| | VOL | Middle East Africa,India VOL. | Normal VOL. |
| | H-PH | H/Phone | |
| | DGS | Degaussing | X |
| | TILT | TILT | |
| | 200PRO | China Only | X |
| Option 3 | AV2 | Back:JACK(2EA) | Back:JACK(1EA) |
| | HOTEL | HOTEL | X |
| | KEY | | |
| | SYS | | |
| | M-VOL | | |
| Option 4 | OSD | | |
| | T-LAN | | |

# MEMO

# EXPLODED VIEW



The components identified by mark ⚠ are critical for safety.
Replace only with part number specified.

# REPLACEMENT PARTS LIST

| LOCA. NO | PART NO | DESCRIPTION |
|---|---|---|
| | | **IC** |
| D850 | 0ISK100300A | IC,SLA1003 SIP12 BK DIODE MODULE( |
| ICV01 | 0IIT312000A | IC,VDP3120B 64P SDIP BK VCD IC (5 |
| ICN01 | 0IIT341000J | IC,MSP3410D-C5 52P SDIP BK MULTI |
| IC01 | 0ICTMIH001B | IC,SDA5555-A030 W/TXT |
| " | 0ICTMIH002A | IC,SDA5525-A004(LG8003-29A) W/O TXT |
| IC02 | 0IAL241610B | IC,AT24C16-10PC-2.7 8PIN DIP ST E |
| ICV02 | 0IFA754207A | IC,KA75420ZTA(KA7542ZTA) 3P,TO-92 |
| ICN02 | 0ISG282200A | IC,TDA2822M 8D DUAL AUDIO AMP(1W) |
| IC03 | 0IFA752700A | IC,KA75270Z 3 TP RE-SET IC MC-007 |
| ICN03 | 0IKE780500Q | IC,KIA7805API 3P TO-220 ST REGULA |
| IC04 | 0ISG111733B | IC,LD1117V33C 3SIP ST REGULATOR |
| ICN05 | 0IFA753307A | IC,KA75330ZTA(KA7533ZTA) 3P,TO-92 |
| IC101 | 0ITF447000A | IC,TDA4470M 28P,SDIP BK VIF+SIF |
| IC102 | 0IKE780500Q | IC,KIA7805API 3P TO-220 ST REGULA |
| IC301 | 0ISA784600A | IC,7846 SIP 10K |
| IC302 | 0IKE455800E | IC,KIA4558 8DIP DUAL OP AMP |
| IC601 | 0ISA428200A | IC,LA4282 12S 2CHX10W AUDIO AMP |
| IC801 | 0ISK665613B | IC,STR-F6656(LF1352) 5P,SIP BK ST |
| IC803 | 0ILI817000G | IC,LTV817M-VB 4P,DIP BK PHOTO COU |
| IC851 | 0IKE780500Q | IC,KIA7805API 3P TO-220 ST REGULA |
| IC853 | 0ISH092100B | IC,PQ09RD21 4SIP ST REGULATOR |
| IC855 | 0ISS278050A | IC,KA278R05 4P,TO-220F BK LOW DRO |
| IC856 | 0ISK140000A | IC,SE140N 3P 130V ERROR AMP |
| IC901 | 0ISG510900A | IC,STV5109 15SIP ST RGB DRIVE |
| Q07 | 0IFA270000A | IC,2N7000TA TO-92, 3P TP LEVEL SH |
| Q08 | 0IFA270000A | IC,2N7000TA TO-92, 3P TP LEVEL SH |
| | | **DIODE** |
| D01 | 0DD414809ED | DIODE,1N4148 TA |
| D02 | 0DD414809ED | DIODE,1N4148 TA |
| D03 | 0DD414809ED | DIODE,1N4148 TA |
| D04 | 0DD414809ED | DIODE,1N4148 TA |
| D101 | 0DD414809ED | DIODE,1N4148 TA |
| D124 | 0DD859009AA | DIODE,SILICON MA859 |
| D301 | 0DD150009CE | DIODE,RECTIFIER GP15J TP(1.5A/600V) |
| D302 | 0DS113379BA | DIODE,SWITCHING 1SS133 T-72 |
| D401 | 0DD410000AC | DIODE,RECTIFIER RU4DS,LF-L1 |
| D402 | 0DD410000AD | DIODE,RECTIFIER RU4AM,LF-L1 |
| D403 | 0DD150009CA | DIODE,RECTIFIER RGP15J,TP(52MM) |
| D404 | 0DR150009AB | DIODE,RECTIFIER RGP15G TP |
| D405 | 0DD150009CC | DIODE,RECTIFIER RGP15G TP |
| D406 | 0DD150009CC | DIODE,RECTIFIER RGP15G TP |
| D407 | 0DD414809ED | DIODE,1N4148 TA |
| D408 | 0DD100009AE | DIODE,RECTIFIER RU1A V(1) TP |
| D412 | 0DD414809ED | DIODE,1N4148 TA |
| D601 | 0DD414809ED | DIODE,1N4148 TA |
| D602 | 0DD414809ED | DIODE,1N4148 TA |
| D802 | 0DR060009AA | DIODE,RECTIFIER TVR06J TP |
| D803 | 0DD100009AM | DIODE,RECTIFIER EU1ZV(1) TP |
| D804 | 0DD414809ED | DIODE,1N4148 TA |
| D851 | 0DD060009AC | DIODE,TVR06J 0.6A/600V 250NS |
| D852 | 0DD060009AC | DIODE,TVR06J 0.6A/600V 250NS |

| LOCA. NO | PART NO | DESCRIPTION |
|---|---|---|
| D853 | 0DD060009AC | DIODE,TVR06J 0.6A/600V 250NS |
| D854 | 0DD060009AC | DIODE,TVR06J 0.6A/600V 250NS |
| D855 | 0DD060009AC | DIODE,TVR06J 0.6A/600V 250NS |
| D856 | 0DD414809ED | DIODE,1N4148 TA |
| D857 | 0DD414809ED | DIODE,1N4148 TA |
| D859 | 0DD420000BB | DIODE,D4L20U SHINDENGEN |
| D861 | 0DR060009AA | DIODE,RECTIFIER TVR06J TP |
| D863 | 0DD414809ED | DIODE,1N4148 TA |
| D864 | 0DD414809ED | DIODE,1N4148 TA |
| D865 | 0DD414809ED | DIODE,1N4148 TA |
| D901 | 0DD414809ED | DIODE,1N4148 TA |
| D902 | 0DD414809ED | DIODE,1N4148 TA |
| D903 | 0DD414809ED | DIODE,1N4148 TA |
| D904 | 0DR140049AC | DIODE,RECTIFIER IN4004A |
| D905 | 0DD414809ED | DIODE,1N4148 TA |
| D906 | 0DD414809ED | DIODE,1N4148 TA |
| D907 | 0DD414809ED | DIODE,1N4148 TA |
| DB801 | 0DD560000AA | DIODE,RECTIFIER D5SB60 BRIDGE(5A/600V) |
| DV01 | 0DD414809ED | DIODE,1N4148 TA |
| DV02 | 0DD414809ED | DIODE,1N4148 TA |
| DV03 | 0DD414809ED | DIODE,1N4148 TA |
| LD01 | 4930V00048A | HOLDER,DIODE LED ASSY |
| ZDN01 | 0DZ820009AH | DIODE,ZENER MTZJ8.2B TP ROHM-K |
| ZD101 | 0DZ330009BA | DIODE,ZENER HZT33(TP) HITACHI |
| ZD201 | 0DZ330009CC | DIODE,ZENER MTZJ3.3B TP ROHM-K |
| ZD202 | 0DZ680009BB | DIODE,ZENER MTZJ6.8B TP ROHM-K |
| ZD203 | 0DZ680009BB | DIODE,ZENER MTZJ6.8B TP ROHM-K |
| ZD301 | 0DZ180009BE | DIODE,ZENER GDZJ18B TP GRANDE D |
| ZD302 | 0DZ560009AH | DIODE,ZENER GDZJ5.6B TP GRANDE |
| ZD303 | 0DZ180009BE | DIODE,ZENER GDZJ18B TP GRANDE D |
| ZD401 | 0DZ510009BF | DIODE,ZENER GDZ5.1B |
| ZD402 | 0DZ510009BF | DIODE,ZENER GDZ5.1B |
| ZD901 | 0DZ180009BE | DIODE,ZENER GDZJ18B TP GRANDE D |
| | | **TRANSISTOR** |
| Q02 | 0TR945009AA | TR,KSC945C-Y TP SAMSUNG |
| Q03 | 0TR102009AB | TR,KRC102M,TP(KRC1202),KEC |
| Q04 | 0TR945009AA | TR,KSC945C-Y TP SAMSUNG |
| Q05 | 0TR102009AB | TR,KRC102M,TP(KRC1202),KEC |
| Q06 | 0TR126609AA | TR,KTA1266-TP-Y (KTA1015) KEC |
| Q101 | 0TR102009AB | TR,KRC102M,TP(KRC1202),KEC |
| Q102 | 0TR102009AB | TR,KRC102M,TP(KRC1202),KEC |
| Q103 | 0TR103009AD | TR,KRC103M |
| Q122 | 0TR945009AA | TR,KSC945C-Y TP SAMSUNG |
| Q123 | 0TR733009AA | TR,KSA733C-Y TP SAMSUNG TO-92 |
| Q125 | 0TR319709AB | TR,KTC3197,TP(KTC388A),KEC |
| Q126 | 0TR945009AA | TR,KSC945C-Y TP SAMSUNG |
| Q127 | 0TR945009AA | TR,KSC945C-Y TP SAMSUNG |
| Q201 | 0TR733009AA | TR,KSA733C-Y TP SAMSUNG TO-92 |
| Q221 | 0TR733009AA | TR,KSA733C-Y TP SAMSUNG TO-92 |
| Q301 | 0TR945009AA | TR,KSC945C-Y TP SAMSUNG |
| Q302 | 0TR205900AB | TR,KTD2059-Y TO-220IS KEC |
| Q303 | 0TR127409AB | TR,KTA1274-Y TO-92L TP KEC |

For Capacitor & Resistors, the charactors at 2nd and 3rd digit in the P/No. means as follows;

CC, CX, CK, CN : Ceramic
CQ : Polyestor
CE : Electrolytic

RD : Carbon Film
RS : Metal Oxide Film
RN : Metal Film
RF : Fusible

The components identified by mark ⚠ are critical for safety.
Replace only with part number specified.

| LOCA. NO | PART NO | DESCRIPTION |
|---|---|---|
| Q401 | 0TR258100AA | TR,2SD2581 BK SANYO TO3P - |
| Q402 | 0TR223800AA | TR,KTC2238A-Y |
| Q601 | 0TR733009AA | TR,KSA733C-Y TP SAMSUNG TO-92 |
| Q851 | 0TR945009AA | TR,KSC945C-Y TP SAMSUNG |
| Q852 | 0TR322709AA | TR,KTC3227-Y,TP(KTC1627A),KEC |
| Q853 | 0TR945009AA | TR,KSC945C-Y TP SAMSUNG |
| Q857 | 0TR320209AA | TR,KTC3202-TP-Y (KTC1959)KEC |
| Q901 | 0TR126609AA | TR,KTA1266-TP-Y (KTA1015) KEC |
| QN01 | 0TR150400BA | TR,CHIP 2SA1504S(ASY) KEC |
| QN02 | 0TR150400BA | TR,CHIP 2SA1504S(ASY) KEC |
| QV01 | 0TR387500AA | TR,CHIP 2SC3875S(ALY) KEC |
| QV02 | 0TR387500AA | TR,CHIP 2SC3875S(ALY) KEC |
| QV03 | 0TR387500AA | TR,CHIP 2SC3875S(ALY) KEC |
| QV07 | 0TR387500AA | TR,CHIP 2SC3875S(ALY) KEC |
| QV08 | 0TR387500AA | TR,CHIP 2SC3875S(ALY) KEC |
| QV09 | 0TR150400BA | TR,CHIP 2SA1504S(ASY) KEC |
| QV10 | 0TR387500AA | TR,CHIP 2SC3875S(ALY) KEC |
| QV11 | 0TR387500AA | TR,CHIP 2SC3875S(ALY) KEC |
| QV12 | 0TR150400BA | TR,CHIP 2SA1504S(ASY) KEC |
| QV13 | 0TR387500AA | TR,CHIP 2SC3875S(ALY) KEC |
| QV14 | 0TR387500AA | TR,CHIP 2SC3875S(ALY) KEC |
| QV15 | 0TR150400BA | TR,CHIP 2SA1504S(ASY) KEC |

## CAPACITOR

| | | |
|---|---|---|
| C01 | 0CE476DD618 | 47UF STD 10V 20% FL TP 5 |
| C02 | 0CN1030F679 | 10000P 16V M Y TA52 |
| C03 | 0CX6200K409 | 62P 50V J SL TA52 |
| C04 | 0CX6200K409 | 62P 50V J SL TA52 |
| C05 | 0CN1030F679 | 10000P 16V M Y TA52 |
| C06 | 0CE107DD618 | 100UF STD 10V M FL TP5 |
| C08 | 0CN1030F679 | 10000P 16V M Y TA52 |
| C09 | 0CN1030F679 | 10000P 16V M Y TA52 |
| C10 | 0CE106DK618 | 10UF STD 50V M FL TP5 |
| C11 | 0CE106DK618 | 10UF STD 50V M FL TP5 |
| C12 | 181-007D | MPE ECQ-V1H154JL3(TR), 50V 0.1 |
| C14 | 0CN1040K949 | 0.1M 50V Z F TA52 |
| C17 | 0CN1010K519 | 100P 50V K B TA52 |
| C18 | 0CE476DF618 | 47UF STD 16V M FL TP5 |
| C19 | 0CE475DK618 | 4.7UF STD 50V 20% FL TP 5 |
| C20 | 0CE476DD618 | 47UF STD 10V 20% FL TP 5 |
| C21 | 0CE107DD618 | 100UF STD 10V M FL TP5 |
| C22 | 0CN1030F679 | 10000P 16V M Y TA52 |
| C24 | 0CE225DK618 | 2.2UF STD 50V 20% FL TP 5 |
| C25 | 0CN1020K519 | 1000P 50V K B TA52 |
| C26 | 0CC3300K415 | 33P 50V J NP0 TP |
| C27 | 0CC3300K415 | 33P 50V J NP0 TP |
| C29 | 0CN1030F679 | 10000P 16V M Y TA52 |
| C30 | 0CE106DK618 | 10UF STD 50V M FL TP5 |
| C31 | 0CE106DK618 | 10UF STD 50V M FL TP5 |
| C32 | 0CN1030F679 | 10000P 16V M Y TA52 |
| C33 | 0CN1030F679 | 10000P 16V M Y TA52 |
| C34 | 0CN1030F679 | 10000P 16V M Y TA52 |
| C101 | 0CE476DK618 | 47UF STD 50V M FL TP5 |

| LOCA. NO | PART NO | DESCRIPTION |
|---|---|---|
| C103 | 0CN1030F679 | 10000P 16V M Y TA52 |
| C104 | 0CE227DD618 | 220UF STD 10V M FL TP5 |
| C105 | 0CX3300K409 | 33P 50V J SL TA52 |
| C106 | 0CX3300K409 | 33P 50V J SL TA52 |
| C108 | 0CE106DF618 | 10UF STD 16V M FL TP5 |
| C109 | 0CE335DK618 | 3.3UF STD 50V 20% FL TP 5 |
| " | 0CE475DK618 | 4.7UF STD 50V 20% * CL- |
| C110 | 0CN1040K949 | 0.1M 50V Z F TA52 |
| C111 | 0CE227DF618 | 220UF STD 16V M |
| C112 | 0CN1020K519 | 1000P 50V K B TA52 |
| C113 | 0CE476DD618 | 47UF STD 10V 20% FL TP 5 |
| C114 | 0CN1030F679 | 10000P 16V M Y TA52 |
| C115 | 0CN1030F679 | 10000P 16V M Y TA52 |
| C121 | 0CN1030F679 | 10000P 16V M Y TA52 |
| C122 | 0CN1030F679 | 10000P 16V M Y TA52 |
| C123 | 0CN1030F679 | 10000P 16V M Y TA52 |
| C124 | 0CN1030F679 | 10000P 16V M Y TA52 |
| C125 | 0CN1040K949 | 0.1M 50V Z F TA52 |
| C126 | 0CN1030F679 | 10000P 16V M Y TA52 |
| C127 | 181-007H | MPE ECQ-V1H474JL3(TR), 50V 0.4 |
| C128 | 0CE106DF618 | 10UF STD 16V M FL TP5 |
| C129 | 0CN1030F679 | 10000P 16V M Y TA52 |
| C130 | 0CSZVTA001F | TAP684K035BRS(AMMO)35V 0.68UFK |
| " | 0CSZVTA001G | 2.2UF 25V K * CL- |
| C131 | 0CN1030F679 | 10000P 16V M Y TA52 |
| C132 | 0CN1030F679 | 10000P 16V M Y TA52 |
| C134 | 0CE476DD618 | 47UF STD 10V 20% FL TP 5 |
| C135 | 0CN1040K949 | 0.1M 50V Z F TA52 |
| C136 | 0CE226DF618 | 22UF STD 16V M FL TP5 |
| C137 | 181-007H | MPE ECQ-V1H474JL3(TR), 50V 0.4 |
| C138 | 0CN1040K949 | 0.1M 50V Z F TA52 |
| C139 | 0CE104DK618 | 0.1000UF STD 50V M FL TP5 |
| C140 | 0CN1030F679 | 10000P 16V M Y TA52 |
| C141 | 0CE107DD618 | 100UF STD 10V M FL TP5 |
| C142 | 0CQ3331N509 | 0.033U 100V K |
| C145 | 0CN1030F679 | 10000P 16V M Y TA52 |
| C147 | 0CX4700K409 | 47P 50V J SL TA52 |
| C148 | 0CX4700K409 | 47P 50V J SL TA52 |
| C149 | 0CE106DF618 | 10UF STD 16V M FL TP5 |
| C183 | 0CE108DF618 | 1000UF STD 16V M FL TP5 |
| C201 | 0CE227DF618 | 220UF STD 16V M FL TP5 |
| C202 | 0CN1010K519 | 100P 50V K B TA52 |
| C203 | 0CN4710K519 | 470P 50V K B TA52 |
| C204 | 0CN4710K519 | 470P 50V K B TA52 |
| C205 | 0CN1010K519 | 100P 50V K B TA52 |
| C206 | 0CN4710K519 | 470P 50V K B TA52 |
| C207 | 0CN4710K519 | 470P 50V K B TA52 |
| C208 | 0CE226DF618 | 22UF STD 16V M FL TP5 |
| C209 | 0CE226DF618 | 22UF STD 16V M FL TP5 |
| C221 | 0CE476DF618 | 47UF STD 16V M FL TP5 |
| C222 | 0CE227DF618 | 220UF STD 16V M FL TP5 |
| C223 | 0CN1010K519 | 100P 50V K B TA52 |
| C224 | 0CN4710K519 | 470P 50V K B TA52 |

The components identified by mark ⚠ are critical for safety.
Replace only with part number specified.

For Capacitor & Resistors, the charactors at 2nd and 3rd digit in the P/No. means as follows;

CC, CX, CK, CN : Ceramic
CQ : Polyestor
CE : Electrolytic

RD : Carbon Film
RS : Metal Oxide Film
RN : Metal Film
RF : Fusible

| LOCA. NO | PART NO | DESCRIPTION |
|---|---|---|
| C225 | 0CN4710K519 | 470P 50V K B TA52 |
| C226 | 0CN1010K519 | 100P 50V K B TA52 |
| C227 | 0CN4710K519 | 470P 50V K B TA52 |
| C228 | 0CN4710K519 | 470P 50V K B TA52 |
| C229 | 0CE226DF618 | 22UF STD 16V M FL TP5 |
| C230 | 0CE226DF618 | 22UF STD 16V M FL TP5 |
| C241 | 0CX4700K409 | 47P 50V J SL TA52 |
| C244 | 0CN1010K519 | 100P 50V K B TA52 |
| C245 | 0CN1010K519 | 100P 50V K B TA52 |
| C249 | 0CN1030F679 | 10000P 16V M Y TA52 |
| C302 | 0CQ3341N401 | 0.33U 100V J POLY F5 |
| C303 | 0CE107BK618 | 100UF KME 50V M FL TP5 |
| C304 | 0CQ6821N509 | 0.0068U 100V K POLY |
| C305 | 0CQ1021N509 | 0.001U 100V K POLY |
| C306 | 0CQ1031N509 | 0.01U 100V K POLY |
| C307 | 0CQ1031N509 | 0.01U 100V K POLY |
| C308 | 0CE476DK618 | 47UF KME 50V M FL TP5 |
| C309 | 0CN4710K519 | 470P 50V K B TA52 |
| C310 | 0CQ1031N509 | 0.01U 100V K POLY |
| C311 | 0CQ1031N509 | 0.01U 100V K POLY |
| C401 | 0CE474DK618 | 0.4700UF STD 50V M FL TP |
| C402 | 0CE475DK618 | 4.7UF STD 50V 20% FL TP |
| C403 | 0CK2220W515 | 2200P 500V K B TS |
| C405 | 181-014P | MPP 1600V 0.012UF J |
| C406 | 181-091G | DE0907-486 R 471K 2KV T |
| C407 | 181-010A | PP 400V 0.022UF J |
| C408 | 0CE5651K652 | 5.6UF SM,SA 50V 20% FM7. |
| C409 | 0CK2220W515 | 2200P 500V K B TS |
| C410 | 0CE106BR618 | 10UF KME 250V M FL TP5 |
| C411 | 181-013N | MPP 400V 0.27UF J |
| C412 | 0CK6810W515 | 680P 500V K B |
| C413 | 0CE107DJ618 | 100UF STD 35V M FL TP5 |
| C414 | 181-091P | 1KV SL 271J TP5 |
| C415 | 0CE108BH618 | 1000UF KME 25V M FL TP5 |
| C416 | 181-009R | PP 200V 0.022UF K |
| C417 | 0CK2710W515 | 270P 500V K B |
| C419 | 0CE108DH618 | 1000UF STD 25V M FL TP5 |
| C420 | 181-010B | PP 400V 0.056UF J |
| C421 | 0CK2710W515 | 270P 500V K B |
| C422 | 0CE106DR618 | 10UF STD 250V M FL TP5 |
| C517 | 0CQ1531N509 | 0.015U 100V K POLY |
| C518 | 0CQ1531N509 | 0.015U 100V K POLY |
| C519 | 0CQ1531N509 | 0.015U 100V K POLY |
| C520 | 0CN1030F679 | 10000P 16V M Y TA52 |
| C601 | 0CE107DH618 | 100UF STD 25V M FL TP5 |
| C602 | 0CE684DK618 | 0.68UF STD 50V 20% FL TP |
| C603 | 0CQ5621N509 | 0.0056U 100V K POLY |
| C604 | 0CE107DH618 | 100UF STD 25V M FL TP5 |
| C605 | 0CE684DK618 | 0.68UF STD 50V 20% FL TP |
| C606 | 0CQ5621N509 | 0.0056U 100V K POLY |
| C607 | 0CE107DH618 | 100UF STD 25V M FL TP5 |
| C608 | 0CQ1041N509 | 0.1U 100V K POLY |
| C609 | 0CE477DJ618 | 470UF STD 35V 20% FL TP |

| LOCA. NO | PART NO | DESCRIPTION |
|---|---|---|
| C610 | 0CQ1041N509 | 0.1U 100V K POLY |
| C611 | 0CE477DJ618 | 470UF STD 35V 20% FL TP |
| C612 | 0CN1040K949 | 0.1M 50V Z F TA52 |
| C613 | 0CE477DK618 | 470UF STD 50V 20% FL TP |
| C614 | 0CE477DH618 | 470UF STD 25V M FL TP5 |
| C802 | 0CQZVBK002D | A.C 275V 0.47UF K (S=22. |
| C803 | 181-091G | DE0907-486 R 471K 2KV T |
| C804 | 181-001F | CE 400V 220UF M LUG (85) |
| C806 | 181-011C | PP 1600V 0.0015UF J |
| C807 | 181-091G | DE0907-486 R 471K 2KV T |
| C808 | 0CE107BJ618 | 100UF KME 35V M FL TP5 |
| C809 | 0CK1020K515 | 1000P 50V K B |
| ⚠ C811 | 181-120K | 2200PF 4KV M E FMTW LEAD |
| C813 | 0CK10201515 | 1000P 1KV K B TS |
| C814 | 0CQZVBK002A | A.C 275V 0.1UF M (S=15) |
| C815 | 181-091Q | 1KV R 471K TP5 |
| C817 | 0CK22201510 | 2200P 1KV K B S |
| C851 | 0CK1020W515 | 1000P 500V K B |
| C852 | 0CK1020W515 | 1000P 500V K B |
| C853 | 0CE477DF618 | 470UF STD 16V 20% FL TP |
| C854 | 0CE107DF618 | 100UF STD 16V M FL TP5 |
| C855 | 0CE107DD618 | 100UF STD 10V M FL TP5 |
| C856 | 0CK47101515 | 470P 1KV K B TS |
| C857 | 0CE228DF618 | 2200UF STD 16V M FL TP5 |
| C858 | 0CE477DF618 | 470UF STD 16V 20% FL TP |
| C859 | 0CK47101515 | 470P 1KV K B TS |
| C860 | 0CE108BF618 | 1000UF KME 16V M FL TP5 |
| C861 | 0CE108BF618 | 1000UF KME 16V M FL TP5 |
| C862 | 0CE475CK636 | 4.7UF SHL,SD 50V 20% FM5 |
| C863 | 181-091Q | 1KV R 471K TP5 |
| C864 | 0CE108DK61A | 1000UF STD 50V M FL TP7. |
| C866 | 0CK4710W515 | 470PF 500V K B TR |
| C867 | 0CE227DK618 | 220UF STD 50V M FL TP5 |
| C870 | 181-091D | DE0905-979 R 102K 1KV T |
| C871 | 0CE2276Q650 | 220UF SMS 200V M FM7.5 B |
| C872 | 0CE107BQ650 | 100UF KME 200V M FM7.5 B |
| ⚠ C873 | 0CQ1041N509 | 0.1U 100V K POLY |
| C901 | 0CX1500K409 | 15P 50V J SL TA52 |
| C902 | 0CX5R60K509 | 5.6P 50V K SL TA52 |
| C903 | 0CX2200K409 | 22P 50V J SL TA52 |
| C904 | 0CE107DF618 | 100UF STD 16V M FL TP5 |
| C905 | 0CN2230H949 | 22000P 25V Z FTA52 |
| C906 | 0CE106DR618 | 10UF STD 250V M FL TP5 |
| C907 | 0CQZVBK002A | A.C 275V 0.1UF M (S=15) |
| C908 | 0CE475DR618 | 4.7UF STD 250V 20% FL TP |
| C909 | 0CK1020W515 | 1000P 500V K B |
| C910 | 0CK1020W515 | 1000P 500V K B |
| C911 | 0CK1020W515 | 1000P 500V K B |
| C912 | 0CE476DF618 | 47UF STD 16V M FL TP5 |
| C913 | 0CK22202515 | 2200PF 2KV K B TR |
| CN05 | 0CE107DF618 | 100UF STD 16V M FL TP5 |
| CN07 | 0CE335DK618 | 3.3UF STD 50V 20% FL TP |
| CN10 | 0CK224DF56A | 220000PF 2012 16V 10% R/ |

For Capacitor & Resistors, the charactors at 2nd and 3rd digit in the P/No. means as follows;

CC, CX, CK, CN : Ceramic
CQ : Polyestor
CE : Electrolytic

RD : Carbon Film
RS : Metal Oxide Film
RN : Metal Film
RF : Fusible

The components identified by mark ⚠ are critical for safety.
Replace only with part number specified.

| LOCA. NO | PART NO | DESCRIPTION |
|---|---|---|
| CN11 | 0CK224DF56A | 220000PF 2012 16V 10% R/ |
| CN12 | 0CK224DF56A | 220000PF 2012 16V 10% R/ |
| CN13 | 0CK224DF56A | 220000PF 2012 16V 10% R/ |
| CN16 | 0CE106DF618 | 10UF STD 16V M FL TP5 |
| CN19 | 0CE107DF618 | 100UF STD 16V M FL TP5 |
| CN20 | 0CE107DF618 | 100UF STD 16V M FL TP5 |
| CN21 | 0CE107DF618 | 100UF STD 16V M FL TP5 |
| CN23 | 0CE107DF618 | 100UF STD 16V M FL TP5 |
| CN24 | 0CE476DF618 | 47UF STD 16V M FL TP5 |
| CN29 | 0CE106DF618 | 10UF STD 16V M FL TP5 |
| CN30 | 0CE106DF618 | 10UF STD 16V M FL TP5 |
| CN32 | 0CE107DF618 | 100UF STD 16V M FL TP5 |
| CN34 | 0CE106DF618 | 10UF STD 16V M FL TP5 |
| CN35 | 0CK224DF56A | 220000PF 2012 16V 10% R/ |
| CN36 | 0CK224DF56A | 220000PF 2012 16V 10% R/ |
| CN37 | 0CK224DF56A | 220000PF 2012 16V 10% R/ |
| CN38 | 0CK224DF56A | 220000PF 2012 16V 10% R/ |
| CN39 | 0CK224DF56A | 220000PF 2012 16V 10% R/ |
| CN40 | 0CK224DF56A | 220000PF 2012 16V 10% R/ |
| CN41 | 0CK224DF56A | 220000PF 2012 16V 10% R/ |
| CN42 | 0CK224DF56A | 220000PF 2012 16V 10% R/ |
| CN43 | 0CK224DF56A | 220000PF 2012 16V 10% R/ |
| CN44 | 0CK224DF56A | 220000PF 2012 16V 10% R/ |
| CN45 | 0CK224DF56A | 220000PF 2012 16V 10% R/ |
| CN46 | 0CK224DF56A | 220000PF 2012 16V 10% R/ |
| CN47 | 0CE106DF618 | 10UF STD 16V M FL TP5 |
| CN49 | 0CK224DF56A | 220000PF 2012 16V 10% R/ |
| CN50 | 0CK224DF56A | 220000PF 2012 16V 10% R/ |
| CN53 | 0CE106DF618 | 10UF STD 16V M FL TP5 |
| CN54 | 0CX5600K409 | 56P 50V J SL TA52 |
| CN59 | 0CE107DF618 | 100UF STD 16V M FL TP5 |
| CV06 | 0CE106DF618 | 10UF STD 16V M FL TP5 |
| CV10 | 0CE335DK618 | 3.3UF STD 50V 20% FL TP |
| CV11 | 0CQ3321N509 | 0.0033U 100V K POLY |
| CV12 | 0CQ3331N509 | 0.033U 100V K POLY |
| CV14 | 0CE106DF618 | 10UF STD 16V M FL TP5 |
| CV16 | 0CE335DK618 | 3.3UF STD 50V 20% FL TP |
| CV20 | 0CE106DF618 | 10UF STD 16V M FL TP5 |
| CV29 | 0CE476DF618 | 47UF STD 16V M FL TP5 |
| CV31 | 0CE106DF618 | 10UF STD 16V M FL TP5 |
| CV36 | 0CE106DF618 | 10UF STD 16V M FL TP5 |
| CV38 | 0CE106DF618 | 10UF STD 16V M FL TP5 |
| CV40 | 181-007H | MPE ECQ-V1H474JL3(TR), 50V 0.4 |
| CV41 | 0CK224DF56A | 220000PF 2012 16V 10% R/TP X7R |
| CV42 | 0CK224DF56A | 220000PF 2012 16V 10% R/TP X7R |
| CV43 | 0CK224DF56A | 220000PF 2012 16V 10% R/TP X7R |
| CV44 | 0CK224DF56A | 220000PF 2012 16V 10% R/TP X7R |
| CV45 | 0CK224DF56A | 220000PF 2012 16V 10% R/TP X7R |
| CV46 | 0CK224DF56A | 220000PF 2012 16V 10% R/TP X7R |
| CV63 | 0CE226DF618 | 22UF STD 16V M FL TP5 |
| R27 | 0CN3910K519 | 390P 50V K |

| LOCA. NO | PART NO | DESCRIPTION |
|---|---|---|
| **CORE** | | |
| FB01 | 125-022K | CORE (CIRC),FERRITE 1UH TAPING |
| FB201 | 125-022K | CORE (CIRC),FERRITE 1UH TAPING |
| FB202 | 125-123A | CORE (CIRC),FERRITE BFD3565R2F |
| FB222 | 125-123A | CORE (CIRC),FERRITE BFD3565R2F |
| FB241 | 125-123A | CORE (CIRC),FERRITE BFD3565R2F |
| FB401 | 125-022K | CORE (CIRC),FERRITE 1UH TAPING |
| FB801 | 125-022K | CORE (CIRC),FERRITE 1UH TAPING |
| FB802 | 125-022K | CORE (CIRC),FERRITE 1UH TAPING |
| FB803 | 125-022K | CORE (CIRC),FERRITE 1UH TAPING |
| FB852 | 125-022K | CORE (CIRC),FERRITE 1UH TAPING |
| FB853 | 125-022K | CORE (CIRC),FERRITE 1UH TAPING |
| FB902 | 125-022K | CORE (CIRC),FERRITE 1UH TAPING |
| FB903 | 125-022K | CORE (CIRC),FERRITE 1UH TAPING |
| **COIL & TRANSFORMER** | | |
| J29 | 0LA0102K119 | INDUCTOR,10UH K |
| J51 | 0LA0182K119 | INDUCTOR,18UH K |
| J89 | 0LA0391K119 | INDUCTOR,3.9UH K |
| J122 | 0LA1000K119 | INDUCTOR,100UH K |
| JV26 | 0LA0391K119 | INDUCTOR,3.9UH K |
| JV27 | 0LA0391K119 | INDUCTOR,3.9UH K |
| L01 | 0LA1000K119 | INDUCTOR,100UH K |
| L02 | 0LA0102K119 | INDUCTOR,10UH K |
| L101 | 150-C01D | COIL,CHOKE 0.55UH |
| " | 150-C01G | COIL,CHOKE 1UH * CL- |
| L102 | 0LA1000K139 | INDUCTOR,100UH K |
| L103 | 0LA0102K119 | INDUCTOR,10UH K 2 |
| L104 | 150-E11G | COIL,IFT 38.9MHZ 1PF |
| L122 | 0LA0681K119 | INDUCTOR,6.8UH K |
| L123 | 150-C01C | COIL,CHOKE 0.48UH |
| L126 | 0LA0102K119 | INDUCTOR,10UH K |
| L201 | 0LA0102K119 | INDUCTOR,10UH K |
| L202 | 0LA0102K119 | INDUCTOR,10UH K |
| L203 | 0LA0102K119 | INDUCTOR,10UH K |
| L204 | 0LA0102K119 | INDUCTOR,10UH K |
| L221 | 0LA0102K119 | INDUCTOR,10UH K |
| L222 | 0LA0102K119 | INDUCTOR,10UH K |
| L223 | 0LA0102K119 | INDUCTOR,10UH K |
| L224 | 0LA0102K119 | INDUCTOR,10UH K |
| L241 | 0LA0102K119 | INDUCTOR,10UH K |
| L242 | 0LA0102K119 | INDUCTOR,10UH K |
| L245 | 0LA0102K119 | INDUCTOR,10UH K |
| L246 | 0LA0102K119 | INDUCTOR,10UH K |
| L401 | 150-717K | COIL,CHOKE 1.1UH |
| L402 | 6140VE0001Q | COIL,LINEARITY 40UH |
| L851 | 0LA1000K139 | INDUCTOR,100UH K |
| L853 | 150-C02F | COIL,CHOKE 82UH R1217 |
| L901 | 0LA0102K139 | INDUCTOR,10UH K |
| LN01 | 0LA0102K119 | INDUCTOR,10UH K |
| LN03 | 0LA1000K119 | INDUCTOR,100UH K |
| LN05 | 0LA1000K119 | INDUCTOR,100UH K |

The components identified by mark ⚠ are critical for safety.
Replace only with part number specified.

For Capacitor & Resistors, the charactors at 2nd and 3rd digit in the P/No. means as follows;

CC, CX, CK, CN : Ceramic
CQ : Polyestor
CE : Electrolytic

RD : Carbon Film
RS : Metal Oxide Film
RN : Metal Film
RF : Fusible

| LOCA. NO | PART NO | DESCRIPTION |
|---|---|---|
| LN06 | 0LA0102K119 | INDUCTOR,10UH K |
| LN07 | 0LA0102K119 | INDUCTOR,10UH K |
| LN08 | 0LA0102K119 | INDUCTOR,10UH K |
| LV01 | 0LA0102K119 | INDUCTOR,10UH K |
| LV02 | 0LA0102K119 | INDUCTOR,10UH K |
| LV03 | 0LA0471K119 | INDUCTOR,4.7UH K |
| LV05 | 0LA0471K119 | INDUCTOR,4.7UH K |
| ⚠ T401 | 151-C02F | TRANSFORMER,H-DRIVE,EI-19,BULK |
| ⚠ T402 | 6174Z-6012T | FBT,FTMPN51 -T6012T |
| ⚠ T801 | 6170VZ0008A | TRANSFORMER,TS4841 30500UH |
| ⚠ T802 | 6170VMCB01F | TRANSFORMER,SMPS EER5345 290UH 150V |
| T803 | 151-D02G | TRANSFORMER,STAND-BY EER3541 0UH |
| **CONNECTOR** | | |
| JW8A | 387-907H | CONNECTOR ASSY,1P MXH8610 450MM |
| JW8B | 387-907H | CONNECTOR ASSY,1P MXH8610 450MM |
| P605B | 387-B08E | CONNECTOR ASSY,8P SHIELD(300) |
| P901 | 387-B08J | CONNECTOR ASSY,8P SHIELD(500) |
| P902 | 387-A07G | CONNECTOR ASSY,7P (L=400) |
| **RESISTOR** | | |
| F851 | 180-D02Y | 0.045 OHM 1/2 W 10% TA52 (MFR) |
| F854 | 180-D02Y | 0.045 OHM 1/2 W 10% TA52 (MFR) |
| F855 | 180-D02Y | 0.045 OHM 1/2 W 10% TA52 (MFR) |
| FR401 | 0RF0331K607 | 3.3 OHM 2 W 5.00% TA62 |
| ⚠ FR402 | 0RF0101K607 | 1 OHM 2 W 5.00% TA62 |
| ⚠ FR403 | 0RF0101K607 | 1 OHM 2 W 5.00% TA62 |
| FR406 | 0RF0101K607 | 1 OHM 2 W 5.00% TA62 |
| ⚠ FR413 | 0RF0141K607 | 1.4 OHM 2 W 5.00% TA62 |
| FR951 | 0RF0101K607 | 1 OHM 2 W 5.00% TA62 |
| J70 | 0RS0681H609 | 6.8 OHM 1/2 W 5.00% TA52 |
| R01 | 0RD3301F609 | 3.3K OHM 1/6 W 5.00% TA52 |
| R02 | 0RD1000F609 | 100 OHM 1/6 W 5.00% TA52 |
| R03 | 0RD3301F609 | 3.3K OHM 1/6 W 5.00% TA52 |
| R04 | 0RD1000F609 | 100 OHM 1/6 W 5.00% TA52 |
| R05 | 0RD4701F609 | 4.7K OHM 1/6 W 5.00% TA52 |
| R06 | 0RD1000F609 | 100 OHM 1/6 W 5.00% TA52 |
| R07 | 0RD4701F609 | 4.7K OHM 1/6 W 5.00% TA52 |
| R08 | 0RD1000F609 | 100 OHM 1/6 W 5.00% TA52 |
| R09 | 0RD4701F609 | 4.7K OHM 1/6 W 5.00% TA52 |
| R10 | 0RD1000F609 | 100 OHM 1/6 W 5.00% TA52 |
| R11 | 0RD4701F609 | 4.7K OHM 1/6 W 5.00% TA52 |
| R12 | 0RD1000F609 | 100 OHM 1/6 W 5.00% TA52 |
| R17 | 0RD0752F609 | 75 OHM 1/6 W 5.00% TA52 |
| R18 | 0RD1000F609 | 100 OHM 1/6 W 5.00% TA52 |
| R19 | 0RD2001F609 | 2K OHM 1/6 W 5.00% TA52 |
| R20 | 0RD1000F609 | 100 OHM 1/6 W 5.00% TA52 |
| R21 | 0RD1603F609 | 160K OHM 1/6 W 5.00% TA52 |
| R22 | 0RD3902F609 | 39K OHM 1/6 W 5.00% TA52 |
| R23 | 0RD1603F609 | 160K OHM 1/6 W 5.00% TA52 |
| R24 | 0RD3902F609 | 39K OHM 1/6 W 5.00% TA52 |
| R25 | 0RD1001F609 | 1K OHM 1/6 W 5.00% TA52 |
| R26 | 0RD1002F609 | 10K OHM 1/6 W 5.00% TA52 |

| LOCA. NO | PART NO | DESCRIPTION |
|---|---|---|
| R28 | 0RD4701F609 | 4.7K OHM 1/6 W 5.00% TA52 |
| R30 | 0RD4701F609 | 4.7K OHM 1/6 W 5.00% TA52 |
| R31 | 0RD4701F609 | 4.7K OHM 1/6 W 5.00% TA52 |
| R32 | 0RD1000F609 | 100 OHM 1/6 W 5.00% TA52 |
| R34 | 0RD1000F609 | 100 OHM 1/6 W 5.00% TA52 |
| R35 | 0RD1001F609 | 1K OHM 1/6 W 5.00% TA52 |
| R36 | 0RD1001F609 | 1K OHM 1/6 W 5.00% TA52 |
| R37 | 0RD1001F609 | 1K OHM 1/6 W 5.00% TA52 |
| R38 | 0RD4302F609 | 43K OHM 1/6 W 5.00% TA52 |
| R39 | 0RD5101F609 | 5.1K OHM 1/6 W 5.00% TA52 |
| R40 | 0RD1000F609 | 100 OHM 1/6 W 5.00% TA52 |
| R41 | 0RD2701F609 | 2.7K OHM 1/6 W 5.00% TA52 |
| R42 | 0RD4701F609 | 4.7K OHM 1/6 W 5.00% TA52 |
| R43 | 0RD3300F609 | 330 OHM 1/6 W 5.00% TA52 |
| R44 | 0RD1301F609 | 1.3K OHM 1/6 W 5.00% TA52 |
| R46 | 0RD8201F609 | 8.2K OHM 1/6 W 5.00% TA52 |
| R48 | 0RD1000F609 | 100 OHM 1/6 W 5.00% TA52 |
| R49 | 0RD5601F609 | 5.6K OHM 1/6 W 5.00% TA52 |
| R50 | 0RD1000F609 | 100 OHM 1/6 W 5.00% TA52 |
| R51 | 0RD1000F609 | 100 OHM 1/6 W 5.00% TA52 |
| R52 | 0RD1000F609 | 100 OHM 1/6 W 5.00% TA52 |
| R53 | 0RD1000F609 | 100 OHM 1/6 W 5.00% TA52 |
| R55 | 0RD5600F609 | 560 OHM 1/6 W 5.00% TA52 |
| R56 | 0RD1001F609 | 1K OHM 1/6 W 5.00% TA52 |
| R57 | 0RD0332F609 | 33 OHM 1/6 W 5.00% TA52 |
| R58 | 0RD0332F609 | 33 OHM 1/6 W 5.00% TA52 |
| R59 | 0RD5601F609 | 5.6K OHM 1/6 W 5.00% TA52 |
| R60 | 0RD5601F609 | 5.6K OHM 1/6 W 5.00% TA52 |
| R61 | 0RD1000F609 | 100 OHM 1/6 W 5.00% TA52 |
| R62 | 0RD1000F609 | 100 OHM 1/6 W 5.00% TA52 |
| R63 | 0RD1000F609 | 100 OHM 1/6 W 5.00% TA52 |
| R64 | 0RD1000F609 | 100 OHM 1/6 W 5.00% TA52 |
| R65 | 0RD1000F609 | 100 OHM 1/6 W 5.00% TA52 |
| R66 | 0RD1000F609 | 100 OHM 1/6 W 5.00% TA52 |
| R67 | 0RD4701F609 | 4.7K OHM 1/6 W 5.00% TA52 |
| R69 | 0RD4701F609 | 4.7K OHM 1/6 W 5.00% TA52 |
| R70 | 0RD1000F609 | 100 OHM 1/6 W 5.00% TA52 |
| R71 | 0RD1000F609 | 100 OHM 1/6 W 5.00% TA52 |
| R101 | 0RD0332F609 | 33 OHM 1/6 W 5.00% TA52 |
| R102 | 0RD0512F609 | 51 OHM 1/6 W 5.00% TA52 |
| R103 | 0RD0512F609 | 51 OHM 1/6 W 5.00% TA52 |
| R104 | 0RS5600H609 | 560 OHM 1/2 W 5.00% TA52 |
| R105 | 0RD2202F609 | 22K OHM 1/6 W 5.00% TA52 |
| R106 | 0RD1002F609 | 10K OHM 1/6 W 5.00% TA52 |
| R107 | 0RD4701F609 | 4.7K OHM 1/6 W 5.00% TA52 |
| R108 | 0RS0102J607 | 10 OHM 1 W 5.00% TA62 |
| R125 | 0RD1001F609 | 1 KOHM 1/6W 5 |
| R128 | 0RD4701F609 | 4.7 KOHM 1/6W 5 |
| R130 | 0RD1502F609 | 15K OHM 1/6 W 5.00% TA52 |
| R132 | 0RD2001F609 | 2K OHM 1/6 W 5.00% TA52 |
| R133 | 0RD1500F609 | 150 OHM 1/6 W 5.00% TA52 |
| R135 | 0RD1001F609 | 1K OHM 1/6 W 5.00% TA52 |
| R136 | 0RD2000F609 | 200 OHM 1/6 W 5.00% TA52 |

For Capacitor & Resistors, the charactors at 2nd and 3rd digit in the P/No. means as follows;

CC, CX, CK, CN : Ceramic
CQ : Polyestor
CE : Electrolytic

RD : Carbon Film
RS : Metal Oxide Film
RN : Metal Film
RF : Fusible

The components identified by mark ⚠ are critical for safety.
Replace only with part number specified.

| LOCA. NO | PART NO | DESCRIPTION |
|---|---|---|
| " | 0RD0682F609 | 68 OHM 1/6W 5 * CL- |
| R137 | 0RD0102F609 | 10 OHM 1/6 W 5.00% TA52 |
| R138 | 0RD3601F609 | 3.6K OHM 1/6 W 5.00% TA52 |
| R139 | 0RD6800F609 | 680 OHM 1/6 W 5.00% TA52 |
| R140 | 0RD0102F609 | 10 OHM 1/6 W 5.00% TA52 |
| R141 | 0RD4700F609 | 470 OHM 1/6 W 5.00% TA52 |
| R142 | 0RD1500F609 | 150 OHM 1/6 W 5.00% TA52 |
| R143 | 0RD1802F609 | 18K OHM 1/6 W 5.00% TA52 |
| R144 | 0RD1001F609 | 1K OHM 1/6 W 5.00% TA52 |
| R145 | 0RD1802F609 | 18K OHM 1/6 W 5.00% TA52 |
| R146 | 0RD1001F609 | 1K OHM 1/6 W 5.00% TA52 |
| R147 | 0RD7500F609 | 750 OHM 1/6 W 5.00% TA52 |
| R148 | 0RD3901F609 | 3.9K OHM 1/6 W 5.00% TA52 |
| R151 | 0RD4701F609 | 4.7 KOHM 1/6W 5 |
| R152 | 0RD4702F609 | 47 KOHM 1/6W 5 |
| R153 | 0RD0511F609 | 5.1 OHM 1/6 W 5.00% TA52 |
| R154 | 0RD4701F609 | 4.7 KOHM 1/6W 5 |
| R155 | 0RD2201F609 | 2.2 KOHM 1/6W 5 |
| R156 | 0RD1201F609 | 1.2K OHM 1/6 W 5.00% TA52 |
| R157 | 0RD0222F609 | 22 OHM 1/6 W 5.00% TA52 |
| R201 | 0RD0622F609 | 62 OHM 1/6 W 5.00% TA52 |
| R202 | 0RD4700F609 | 470 OHM 1/6 W 5.00% TA52 |
| R203 | 0RD1800F609 | 180 OHM 1/6 W 5.00% TA52 |
| R204 | 0RD0752F609 | 75 OHM 1/6 W 5.00% TA52 |
| R205 | 0RD0822F609 | 82 OHM 1/6 W 5.00% TA52 |
| R207 | 0RD0822F609 | 82 OHM 1/6 W 5.00% TA52 |
| R209 | 0RD0822F609 | 82 OHM 1/6 W 5.00% TA52 |
| R210 | 0RD5101F609 | 5.1K OHM 1/6 W 5.00% TA52 |
| R211 | 0RD5101F609 | 5.1K OHM 1/6 W 5.00% TA52 |
| R223 | 0RD4700F609 | 470 OHM 1/6 W 5.00% TA52 |
| R224 | 0RD0682F609 | 68 OHM 1/6 W 5.00% TA52 |
| R226 | 0RD5101F609 | 5.1K OHM 1/6 W 5.00% TA52 |
| R227 | 0RD5101F609 | 5.1K OHM 1/6 W 5.00% TA52 |
| R301 | 0RD1000F609 | 100 OHM 1/6 W 5.00% TA52 |
| R302 | 0RD0101H609 | 1 OHM 1/2 W 5.00% TA52 |
| R303 | 0RD4700F609 | 470 OHM 1/6 W 5.00% TA52 |
| R304 | 0RN2701F409 | 2.7K OHM 1/6 W 1.00% TA52 |
| R305 | 0RD2401F609 | 2.4K OHM 1/6 W 5.00% TA52 |
| R306 | 0RD1002F609 | 10K OHM 1/6 W 5.00% TA52 |
| R307 | 0RD2202F609 | 22K OHM 1/6 W 5.00% TA52 |
| R308 | 0RD2000F609 | 200 OHM 1/6 W 5.00% TA52 |
| R309 | 0RD4701F609 | 4.7K OHM 1/6 W 5.00% TA52 |
| R310 | 0RN1102F409 | 11K OHM 1/6 W 1.00% TA52 |
| R311 | 0RN0221H609 | 2.2 OHM 1/2 W 5.00% TA52 |
| R312 | 0RN0221H609 | 2.2 OHM 1/2 W 5.00% TA52 |
| R313 | 0RS4300H609 | 430 OHM 1/2 W 5.00% TA52 |
| R314 | 0RS4700H609 | 470 OHM 1/2 W 5.00% TA52 |
| R315 | 0RD1000F609 | 100 OHM 1/6 W 5.00% TA52 |
| R316 | 0RD2702F609 | 27K OHM 1/6 W 5.00% TA52 |
| R317 | 0RD1601F609 | 1.6K OHM 1/6 W 5.00% TA52 |
| R319 | 0RN6202F409 | 62K OHM 1/6 W 1.00% TA52 |
| R320 | 0RN1001F409 | 1K OHM 1/6 W 1.00% TA52 |
| R321 | 0RS0561J607 | 5.6 OHM 1 W 5.00% TA62 |

| LOCA. NO | PART NO | DESCRIPTION |
|---|---|---|
| R322 | 0RD1501F609 | 1.5K OHM 1/6 W 5.00% TA52 |
| R323 | 0RD3301F609 | 3.3K OHM 1/6 W 5.00% TA52 |
| R324 | 0RD4700F609 | 470 OHM 1/6 W 5.00% TA52 |
| R325 | 0RS2701H609 | 2.7K OHM 1/2 W 5.00% TA52 |
| R326 | 0RS1501H609 | 1.5K OHM 1/2 W 5.00% TA52 |
| R327 | 0RS1501H609 | 1.5K OHM 1/2 W 5.00% TA52 |
| R328 | 0RD0392F609 | 39 OHM 1/6 W 5.00% TA52 |
| R401 | 0RD1000F609 | 100 OHM 1/6 W 5.00% TA52 |
| R402 | 0RD1001F609 | 1K OHM 1/6 W 5.00% TA52 |
| R403 | 0RD1801H609 | 1.8K OHM 1/2 W 5.00% TA52 |
| R404 | 0RD0332H609 | 33 OHM 1/2 W 5.00% TA52 |
| R405 | 0RS1001K607 | 1 KOHM 2 W 5.00% TA62 |
| R408 | 0RS0221K607 | 2.2 OHM 2 W 5.00% TA62 |
| R409 | 0RS1801H609 | 1.8K OHM 1/2 W 5.00% TA52 |
| R410 | 0RMZVBK002C | 6.8K OHM 5W +/-5% RSR V-TYPE |
| R411 | 0RS4702H609 | 47K OHM 1/2 W 5.00% TA52 |
| R413 | 0RS2002H609 | 20K OHM 1/2 W 5.00% TA52 |
| R414 | 0RS1001H609 | 1K OHM 1/2 W 5.00% TA52 |
| R415 | 0RD1002F609 | 10K OHM 1/6 W 5.00% TA52 |
| R416 | 0RD1001F609 | 1K OHM 1/6 W 5.00% TA52 |
| R417 | 0RD6203F609 | 620K OHM 1/6 W 5.00% TA52 |
| R419 | 0RD7501H609 | 7.5K OHM 1/2 W 5.00% TA52 |
| R421 | 0RS1803J607 | 180K 1W 5% TA62 |
| R422 | 0RD3601F609 | 3.6K OHM 1/6 W 5.00% TA52 |
| R539 | 0RD5100F609 | 510 OHM 1/6 W 5.00% TA52 |
| R540 | 0RD5100F609 | 510 OHM 1/6 W 5.00% TA52 |
| R541 | 0RD5100F609 | 510 OHM 1/6 W 5.00% TA52 |
| R601 | 0RD0472F609 | 47 OHM 1/6 W 5.00% TA52 |
| R602 | 0RD2701F609 | 2.7K OHM 1/6 W 5.00% TA52 |
| R603 | 0RD7501F609 | 7.5K OHM 1/6 W 5.00% TA52 |
| R604 | 0RD2701F609 | 2.7K OHM 1/6 W 5.00% TA52 |
| R605 | 0RD7501F609 | 7.5K OHM 1/6 W 5.00% TA52 |
| R606 | 0RD0472F609 | 47 OHM 1/6 W 5.00% TA52 |
| R607 | 0RF0331H609 | 3.3 OHM 1/2 W 5.00% TA52 |
| R608 | 0RD1001F609 | 1K OHM 1/6 W 5.00% TA52 |
| R609 | 0RF0331H609 | 3.3 OHM 1/2 W 5.00% TA52 |
| R610 | 0RD6802F609 | 68K OHM 1/6 W 5.00% TA52 |
| R611 | 0RD1500F609 | 150 OHM 1/6 W 5.00% TA52 |
| R612 | 0RD1001F609 | 1K OHM 1/6 W 5.00% TA52 |
| R801 | 0RKZVTA001K | 0.47M OHM 1/2 W 5% TA52 PILKOR |
| R802 | 180-822M | RWR 15W 1.0 OHM J PD |
| R803 | 0RD0561H609 | 5.6 OHM 1/2 W 5.00% TA52 |
| ⚠ R804 | 0RD4701F609 | 4.7K OHM 1/6 W 5.00% TA52 |
| R805 | 0RD1001F609 | 1K OHM 1/6 W 5.00% TA52 |
| R806 | 180-A01B | RW ROUND G 2W 0.11 K TA31(63) |
| ⚠ R807 | 0RKZVTA001C | 8.2M OHM 1/2 W 5% TA52 UL PILK |
| R808 | 0RD3001F609 | 3K OHM 1/6 W 5.00% TA52 |
| R809 | 0RS4702K607 | 47K OHM 2 W 5.00% TA62 |
| R851 | 0RS0152H609 | 15 OHM 1/2 W 5.00% TA52 |
| R852 | 0RS0332K607 | 33 OHM 2 W 5.00% TA62 |
| R853 | 0RD4701F609 | 4.7K OHM 1/6 W 5.00% TA52 |
| R854 | 0RD4702F609 | 47K OHM 1/6 W 5.00% TA52 |
| R858 | 0RD4701F609 | 4.7K OHM 1/6 W 5.00% TA52 |

The components identified by mark ⚠ are critical for safety.
Replace only with part number specified.

For Capacitor & Resistors, the charactors at 2nd and 3rd digit in the P/No. means as follows;

CC, CX, CK, CN : Ceramic
CQ : Polyestor
CE : Electrolytic

RD : Carbon Film
RS : Metal Oxide Film
RN : Metal Film
RF : Fusible

| LOCA. NO | PART NO | DESCRIPTION |
|---|---|---|
| R860 | 0RD4701F609 | 4.7K OHM 1/6 W 5.00% TA52 |
| R861 | 0RD1101F609 | 1.1K OHM 1/6 W 5.00% TA52 |
| R862 | 0RD5601F609 | 5.6K OHM 1/6 W 5.00% TA52 |
| R863 | 0RD2001F609 | 2K OHM 1/6 W 5.00% TA52 |
| R869 | 0RD4701F609 | 4.7K OHM 1/6 W 5.00% TA52 |
| R870 | 0RD4702F609 | 47K OHM 1/6 W 5.00% TA52 |
| R901 | 0RD9100F609 | 910 OHM 1/6 W 5.00% TA52 |
| R902 | 0RD2401F609 | 2.4K OHM 1/6 W 5.00% TA52 |
| R903 | 0RD1001F609 | 1 KOHM 1/6 W 5.00% TA52 |
| R904 | 0RD2401F609 | 2.4K OHM 1/6 W 5.00% TA52 |
| R905 | 0RD9100F609 | 910 OHM 1/6 W 5.00% TA52 |
| R906 | 0RD2401F609 | 2.4K OHM 1/6 W 5.00% TA52 |
| R907 | 0RD1803H609 | 180K OHM 1/2 W 5.00% TA52 |
| R908 | 0RKZVTA001A | 2.2M OHM 1/2 W 5% TA52 UL PILK |
| R912 | 0RD0562F609 | 56 OHM 1/6 W 5.00% TA52 |
| R913 | 0RD0562F609 | 56 OHM 1/6 W 5.00% TA52 |
| R914 | 0RD0562F609 | 56 OHM 1/6 W 5.00% TA52 |
| R915 | 0RD4701F609 | 4.7K OHM 1/6 W 5.00% TA52 |
| R916 | 0RD4701F609 | 4.7K OHM 1/6 W 5.00% TA52 |
| R917 | 0RD4701F609 | 4.7K OHM 1/6 W 5.00% TA52 |
| R918 | 0RCZVTA002B | 1.0K OHM 1/2W 10% TA52 PILKOR( |
| R919 | 0RCZVTA002B | 1.0K OHM 1/2W 10% TA52 PILKOR( |
| R920 | 0RCZVTA002B | 1.0K OHM 1/2W 10% TA52 PILKOR( |
| R921 | 0RD3001F609 | 3K OHM 1/6 W 5.00% TA52 |
| R922 | 0RD3301F609 | 3.3K OHM 1/6 W 5.00% TA52 |
| R924 | 0RD8200F609 | 820 OHM 1/6 W 5.00% TA52 |
| R925 | 0RD5100F609 | 510 OHM 1/6 W 5.00% TA52 |
| R930 | 0RS6802K607 | 68K OHM 2 W 5.00% TA62 |
| R931 | 0RS6802K607 | 68K OHM 2 W 5.00% TA62 |
| R932 | 0RS6802K607 | 68K OHM 2 W 5.00% TA62 |
| RN01 | 0RD1000F609 | 100 OHM 1/6 W 5.00% TA52 |
| RN02 | 0RD1000F609 | 100 OHM 1/6 W 5.00% TA52 |
| RN03 | 0RD1002F609 | 10K OHM 1/6 W 5.00% TA52 |
| RN11 | 0RD0271H609 | 2.7 OHM 1/2 W 5.00% TA52 |
| RN14 | 0RD0271H609 | 2.7 OHM 1/2 W 5.00% TA52 |
| RN17 | 0RD0912F609 | 91 OHM 1/6 W 5.00% TA52 |
| RN18 | 0RD1001F609 | 1K OHM 1/6 W 5.00% TA52 |
| RN19 | 0RD1001F609 | 1K OHM 1/6 W 5.00% TA52 |
| RN20 | 0RD1001F609 | 1K OHM 1/6 W 5.00% TA52 |
| RN21 | 0RD1001F609 | 1K OHM 1/6 W 5.00% TA52 |
| RN22 | 0RD1001F609 | 1K OHM 1/6 W 5.00% TA52 |
| RN23 | 0RD1001F609 | 1K OHM 1/6 W 5.00% TA52 |
| RV02 | 0RD1000F609 | 100 OHM 1/6 W 5.00% TA52 |
| RV03 | 0RD1000F609 | 100 OHM 1/6 W 5.00% TA52 |
| RV06 | 0RD1002F609 | 10K OHM 1/6 W 5.00% TA52 |
| RV07 | 0RD9101F609 | 9.1K OHM 1/6 W 5.00% TA52 |
| RV15 | 0RD2201F609 | 2.2K OHM 1/6 W 5.00% TA52 |
| RV16 | 0RD1001F609 | 1K OHM 1/6 W 5.00% TA52 |
| RV34 | 0RD3300F609 | 330 OHM 1/6 W 5.00% TA52 |
| VR121 | 180-F03H | EVN-DJAA03 B103 SEMI-FIX(H) TA |
| VR122 | 180-F03H | EVN-DJAA03 B103 SEMI-FIX(H) TA |

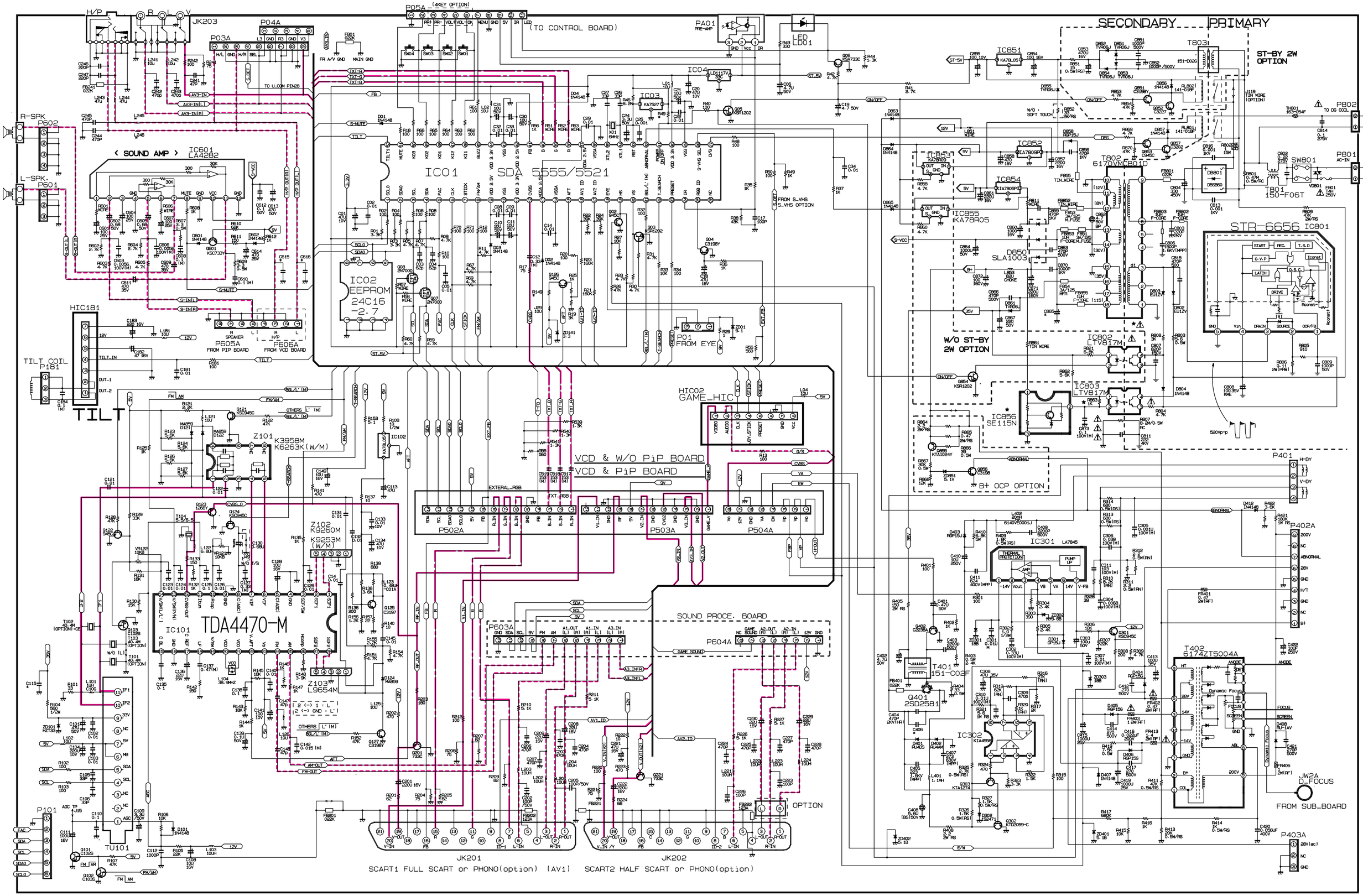
| LOCA. NO | PART NO | DESCRIPTION |
|---|---|---|
| **SPARK GAP** | | |
| SG901 | 165-004A | SPARK GAP,AG20PT 152F-L3N/S-23 |
| SG902 | 165-004A | SPARK GAP,AG20PT 152F-L3N/S-23 |
| SG903 | 165-004A | SPARK GAP,AG20PT 152F-L3N/S-23 |
| SG904 | 165-004A | SPARK GAP,AG20PT 152F-L3N/S-23 |
| **SWITCH** | | |
| SW01 | 140-315A | SWITCH,TACT SKHV17910B LG C&D NON 12V |
| SW02 | 140-315A | SWITCH,TACT SKHV17910B LG C&D NON 12V |
| SW03 | 140-315A | SWITCH,TACT SKHV17910B LG C&D NON 12V |
| SW04 | 140-315A | SWITCH,TACT SKHV17910B LG C&D NON 12V |
| ⚠ SW801 | 6600VM2002A | SWITCH,PUSH SDKEA3 IEC 250V 8A HORIZO |
| **FILTER & CRYSTAL** | | |
| T101 | 166-C06D | FILTER,TRAP MKT40.4MA110P-TF01 MURATA |
| T102 | 166-C06D | FILTER,TRAP MKT40.4MA110P-TF01 MURATA |
| T103 | 166-C06D | FILTER,TRAP MKT40.4MA110P-TF01 MURATA |
| T104 | 166-C04C | FILTER,TRAP TPWA02B-TF21 MURATA 5.5MHZ |
| T105 | 166-C06D | FILTER,TRAP MKT40.4MA110P-TF01 MURATA |
| T801 | 150-F06T | FILTER(CIRC),LINE SQE3535 20MH |
| X01 | 156-A01L | CRYSTAL,HC49U SUNNY RADIAL 6.000MHZ 30 |
| XN01 | 156-A02R | CRYSTAL,HC49U KJE RADIAL 18.432MHZ 30P |
| XV01 | 6202VDB007B | CRYSTAL,HC49U SUNNY RADIAL 20.250MHZ |
| Z101 | 6200VQS001Q | FILTER,SAW OFWK3958M 38.9MHZ |
| Z102 | 6200VQS001D | FILTER,SAW OFWK9260M 38.9MHZ(SIF |
| " | 6200VQS002D | FILTER,SAW OFWK9350M * CL- |
| Z103 | 6200VQS002D | FILTER,SAW L9654M |
| **ACCESSORIES** | | |
| A1 | 3828VA0250G | MANUAL,OWNERS ES LG SP/PO 026C/F/H/J |
| A1 | 3828VA0250S | MANUAL,OWNERS FS GS FR |
| A2 | 6710V00083L | REMOTE CONTROLLER(W/O PIP,W/TXT) ITALY |
| A2 | 6710V00083D | REMOTE CONTROLLER(W/O PIP,W/TXT) |
| A2 | 6710V00026J | REMOTE CONTROLLER(W/O PIP,LG,SILVER |
| A2 | 6710V00063H | REMOTE CONTROLLER(W/O PIP) ,GS |
| **MISCELLANEOUS** | | |
| ⚠ | 0FT4001B53C | FUSE,TIME LAG 4000MA 250V 5.2X20 |
| | 303-F62A | COVER,TUNER |
| ⚠ F853 | 131-096D | FUSE,FAST BLOE 3000MA 125V 2.5X7.6 |
| JK201 | 6612VMH001A | JACK,SCART UPJ-R1-018 RGB 21 PI |
| JK202 | 6612VMH001A | JACK,SCART UPJ-R1-018 RGB 21 PI |
| JK203 | 6613V00006A | JACK ASSY,3P+EAR(PJ6062A) |
| PA02 | 6726VV0006H | PRE-AMP,TSOP2238NN1 VISHAY 38KHZ MC00A |
| RL801 | 6920VB1001E | RELAY,DC SDT-S-105LMR OEG 5V 0.05A 250V |
| RL802 | 6920VB1001E | RELAY,DC SDT-S-105LMR OEG 5V 0.05A 250V |
| ⚠ SK901 | 6620VBC001A | SOCKET,CPT 29.1 PHI SINGLE(PCS629-03A) |
| TH801 | 163-054F | THERMISTOR,PTCJ502P84D140M290Q |
| TU101 | 6700VPF005D | TUNER,TAEC-G023D |
| VD801 | 164-003K | VARISTOR,SVC621D-14A 620V 0% UL/C |

# EXPLODED VIEW PARTS LIST

The components identified by mark ⚠ is critical for safety.
Replace only with part number specified.

| LOCA. NO | PART NO | DESCRIPTIONS |
|---|---|---|
| 104 | 343-B52A | SUPPORTER,PCB |
| ⚠ 112 | 112-C28G | CPT SET,A66EAK071*11(PHILIPS)28” |
| 120 | 120-C77K | SPEAKER,GENERAL C122P02K145E 8 OHM |
| ⚠ 150 | 6140VC2001G | COIL,DEGAUSSING CU 28” 50TURN 14 OHM . |
| ⚠ 170 | 170-844J | LEAD SET,CPT EARTH |
| 300 | 3106V00073H | CABINET UNIT MA LOCAL |
| | 3106V00073J | CABINET UNIT SILVER |
| 310 | 5020V00226B | BUTTON,CONTROL 4KEY |
| | 5020V00226C | BUTTON,CONTROL 4KEY SILVER |
| 320 | 320-062J | SPRING,KNOB |
| 321 | 320-062C | SPRING,KNOB |
| 330 | 5020V00227B | BUTTON,POWER |
| | 5020V00227C | BUTTON,POWER SILVER |
| 400 | 3809V00099D | BACK COVER ASSY MA LOCAL |
| 510 | 6871VSM728B | PWB ASSY,CPT 28” PHILPS,STV5109 SE |
| 520 | 6871VMM635G | PWB ASSY,MAIN 007A CE- |
| | 6871VMM635W | PWB ASSY,MAIN 007A CL- |
| 530 | 6871VSM819A | PWB ASSY,007A VCD W/O(PIP,SVHS & S |
| 540 | 6871VSM589A | PWB ASSY,STRO MC007A RF ST.W/ H_PHONE |
| 550 | 6871VSM842A | PWB ASSY,CURRENT HARMONICS STANDARD |
| 913 | 332-229B | SCREW DRAWING ASSY,HEXAGON HEAD SPECIAL |
| 943 | 1PTF0403116 | SCREW,TAP TITE(P) D4.0 L16.0 MSWR3/FZB |
| ⚠ P801 | 174-009U | CORD,POWER(W/HOLD,HOUSING)L=350,4.0 |
| | 174-224G | POWER CORD ASSY |

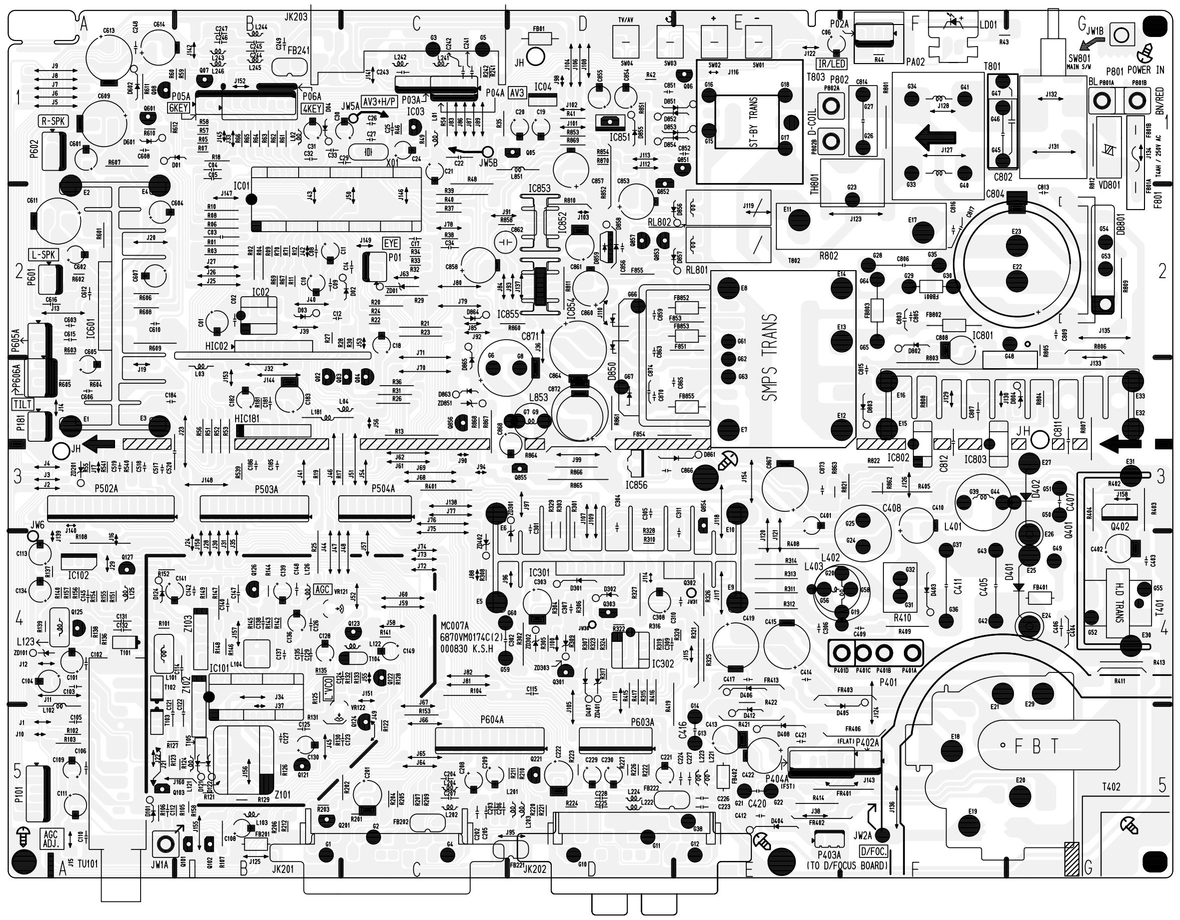
# CIRCUIT DIAGRAM FOR MC007A CHASSIS




**P/No : 3854VA0071A-S1**
**2000.06.15**

# PRINTED CIRCUIT BOARD

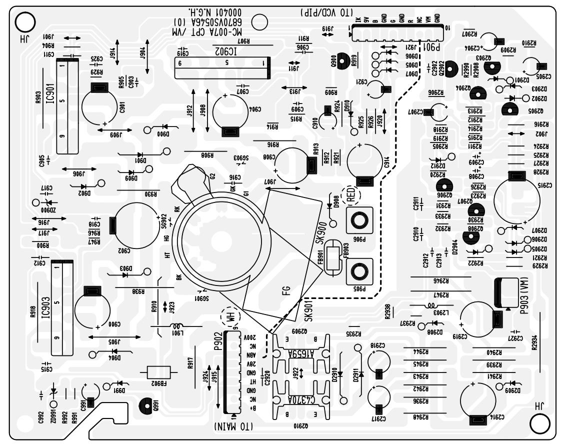
## MAIN



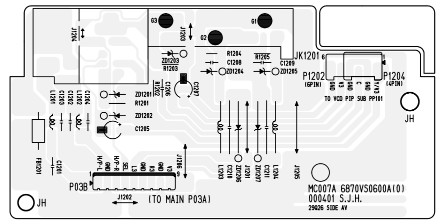
## COMPONENT LOCATION GUIDE

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| C01......B2 | C184......A3 | C604......A2 | D601......A1 | JW1A......A5 | Q07......B1 | R51......B3 | R207......C5 | R609......B2 | Z101......B5 |
| C02......B2 | C185......B3 | C605......A3 | D602......A1 | JW2A......F5 | Q08......A1 | R52......B3 | R209......C5 | R610......A1 | Z102......B4 |
| C03......B2 | C186......B3 | C606......A3 | D802......F3 | L01......C1 | Q101......B5 | R53......B3 | R210......D5 | R611......A1 | Z103......B4 |
| C04......B1 | C201......C5 | C607......A2 | D803......F3 | L02......B1 | Q102......B5 | R55......A3 | R211......D5 | R612......A1 | ZD01......C2 |
| C05......B2 | C202......C5 | C608......A1 | D804......G3 | L03......B3 | Q103......A5 | R56......B3 | R212......B5 | R801......F1 | ZD101......A4 |
| C06......E1 | C203......C5 | C609......A1 | D850......D3 | L04......B3 | Q121......B5 | R57......B1 | R220......D5 | R802......F2 | ZD201......A3 |
| C08......B2 | C204......C5 | C610......A2 | D851......E1 | L101......A4 | Q122......C4 | R58......B1 | R221......D5 | R803......F3 | ZD301......D3 |
| C09......B2 | C205......C5 | C611......A2 | D852......D1 | L102......A5 | Q123......C4 | R59......B1 | R222......D5 | R804......G3 | ZD302......D4 |
| C10......B2 | C206......C5 | C612......A2 | D853......E1 | L103......B5 | Q124......C5 | R60......B1 | R223......D5 | R805......G2 | ZD303......D4 |
| C11......B2 | C207......C5 | C613......A1 | D854......D1 | L104......B4 | Q125......A4 | R61......B1 | R224......D5 | R806......G3 | ZD401......D4 |
| C12......B2 | C208......C5 | C614......A1 | D855......D1 | L121......B5 | Q126......B4 | R62......B1 | R226......D5 | R807......G3 | ZD402......C4 |
| C14......C2 | C209......C5 | C615......A2 | D856......E2 | L122......B4 | Q127......A4 | R63......B1 | R227......D5 | R808......F3 | ZD851......C3 |
| C17......C2 | C221......D5 | C616......A2 | D857......E2 | L123......A4 | Q201......B5 | R64......B1 | R241......C1 | R809......G2 | |
| C18......C2 | C222......D5 | C802......F1 | D858......D2 | L125......A4 | Q221......D5 | R65......B1 | R242......C1 | R810......D2 | |
| C19......D1 | C223......E5 | C803......F2 | D859......D2 | L126......B4 | Q301......D4 | R66......B1 | R301......D4 | R811......D2 | |
| C20......D1 | C224......E5 | C804......G2 | D861......E3 | L181......B3 | Q303......D4 | R67......B2 | R302......D4 | R812......G2 | |
| C21......C2 | C225......D5 | C805......F2 | D863......C3 | L201......D5 | Q402......G3 | R69......B2 | R303......D4 | R821......F3 | |
| C22......C1 | C226......E5 | C806......F2 | D864......C2 | L202......C5 | Q601......A1 | R70......B2 | R304......D4 | R822......F3 | |
| C24......C1 | C227......E5 | C807......F3 | D865......C2 | L203......D5 | Q851......E1 | R71......B2 | R305......D4 | R851......D1 | |
| C25......C1 | C228......D5 | C808......F3 | DB801......G2 | L204......C5 | Q852......D2 | R101......B4 | R306......D4 | R852......D2 | |
| C26......C1 | C229......D5 | C809......G2 | F851......D3 | L221......E5 | Q853......D2 | R102......A5 | R307......D4 | R853......D1 | |
| C27......C1 | C230......D5 | C811......G3 | F853......D2 | L222......D5 | Q854......E4 | R103......A5 | R308......C4 | R854......D1 | |
| C29......B1 | C241......C1 | C812......F3 | F854......E3 | L223......E5 | Q855......D3 | R104......C4 | R309......D4 | R858......C2 | |
| C30......C1 | C242......C1 | C813......G2 | F855......D2 | L224......D5 | Q856......C3 | R105......B5 | R310......D4 | R860......C2 | |
| C31......B1 | C243......C1 | C814......F1 | F801A......G2 | L241......C1 | Q857......D2 | R106......A5 | R311......E4 | R861......D3 | |
| C32......B1 | C244......B1 | C815......F3 | F801B......G1 | L242......C1 | R01......B2 | R107......B5 | R312......E4 | R862......F3 | |
| C33......C1 | C245......B1 | C816......F2 | FB01......D1 | L243......B1 | R02......B2 | R108......A4 | R313......E4 | R863......E3 | |
| C34......C2 | C246......B1 | C817......F2 | FB201......B5 | L244......B1 | R03......B2 | R121......B5 | R314......E4 | R864......D3 | |
| C101......A4 | C247......B1 | C851......D1 | FB202......C5 | L245......B1 | R04......B2 | R122......C5 | R315......D5 | R865......D3 | |
| C102......A4 | C248......A1 | C852......E1 | FB221......C5 | L246......B1 | R05......B1 | R123......A5 | R316......D4 | R866......D3 | |
| C103......A4 | C249......B1 | C853......D2 | FB222......D5 | L401......F3 | R06......B2 | R124......B5 | R317......D4 | R867......C3 | |
| C104......A4 | C301......D4 | C854......D1 | FB241......B1 | L402......F4 | R07......B1 | R125......B5 | R319......D4 | R868......C3 | |
| C105......A5 | C302......C4 | C855......D1 | FB401......G4 | L403......E4 | R08......B2 | R126......B5 | R320......E4 | R869......D1 | |
| C106......A5 | C303......D4 | C856......D2 | FB402......E5 | L851......D1 | R09......B2 | R127......A5 | R321......E4 | R870......D1 | |
| C108......B5 | C304......D4 | C857......D1 | FB801......F2 | L853......D3 | R10......B2 | R128......C4 | R322......D4 | RL801......E2 | |
| C109......A5 | C305......D3 | C858......C2 | FB802......F2 | LD01......F1 | R11......B2 | R129......B5 | R323......D4 | RL802......E2 | |
| C110......A5 | C306......E4 | C859......D2 | FB803......F2 | P01......C2 | R12......B2 | R130......B5 | R324......D4 | SW01......E1 | |
| C111......A5 | C307......D4 | C860......D2 | FB852......D2 | P101......A5 | R13......C3 | R131......C5 | R325......E4 | SW02......E1 | |
| C112......A5 | C308......D4 | C861......D2 | FB853......D2 | P181......A3 | R17......C3 | R132......C4 | R326......E4 | SW03......D1 | |
| C113......A4 | C309......D4 | C862......C2 | FB855......D3 | P601......A2 | R18......B1 | R133......C4 | R327......D4 | SW04......D1 | |
| C114......B4 | C310......E4 | C863......D3 | FR401......E5 | P602......A1 | R19......B3 | R135......B4 | R328......D4 | SW801......G1 | |
| C115......D4 | C311......E4 | C864......D3 | FR402......E5 | P02A......F1 | R20......C2 | R136......A4 | R329......D4 | T101......A4 | |
| C121......A4 | C401......E4 | C865......E3 | FR403......E5 | P03A......C1 | R21......C2 | R137......A4 | R401......C3 | T102......A4 | |
| C122......B4 | C402......G4 | C866......E3 | FR406......E5 | P04A......C1 | R22......C2 | R138......A4 | R402......G3 | T103......A5 | |
| C123......C5 | C403......G4 | C867......E3 | FR413......E4 | P05A......B1 | R23......C2 | R139......A4 | R403......G4 | T104......C4 | |
| C124......C4 | C404......G4 | C868......D3 | HIC02......B2 | P06A......B1 | R24......C2 | R140......A4 | R404......G3 | T105......B5 | |
| C125......B5 | C405......F4 | C870......D3 | HIC181......B3 | P401A......F4 | R25......B4 | R141......C4 | R405......F3 | T401......G4 | |
| C126......B4 | C406......G4 | C871......D3 | IC01......B2 | P401B......F4 | R26......C3 | R142......B4 | R408......E4 | T402......F5 | |
| C127......B5 | C407......G3 | C872......D3 | IC02......B2 | P401C......F4 | R27......B3 | R143......B4 | R409......F4 | T801......F1 | |
| C128......B4 | C408......F3 | C873......E3 | IC03......C1 | P401D......F4 | R28......C3 | R144......B4 | R410......F4 | T802......E2 | |
| C129......B4 | C409......F4 | C874......D3 | IC04......D1 | P402A......F5 | R29......C2 | R145......B4 | R411......G4 | T803......E1 | |
| C130......B5 | C410......F4 | D01......A1 | IC101......B5 | P403A......E5 | R30......C3 | R146......B4 | R413......G4 | TH801......F2 | |
| C131......A4 | C411......F4 | D02......C2 | IC102......A4 | P404A......F5 | R31......C3 | R147......B4 | R414......E5 | TP1......A5 | |
| C132......A4 | C412......E5 | D03......B2 | IC301......D4 | P502A......A3 | R32......C2 | R148......B4 | R415......D5 | TP2......A5 | |
| C134......A4 | C413......E5 | D04......B1 | IC302......D4 | P503A......B3 | R33......C2 | R149......B4 | R416......D4 | TP3......B4 | |
| C135......B4 | C414......E4 | D101......A5 | IC601......A2 | P504A......C3 | R34......C2 | R151......A4 | R417......D4 | TP4......B4 | |
| C136......B4 | C415......E4 | D121......B5 | IC801......G2 | P603A......D5 | R35......C1 | R152......A4 | R419......E4 | TP5......B5 | |
| C137......B4 | C416......E5 | D122......B5 | IC802......F3 | P604A......D5 | R36......C3 | R153......C5 | R421......E5 | TP6......B5 | |
| C138......B4 | C417......E4 | D124......A4 | IC803......F3 | P605A......A2 | R37......C2 | R154......A4 | R422......E5 | TP7......B5 | |
| C139......B4 | C419......E4 | D301......D4 | IC851......D1 | P606A......A3 | R38......C2 | R155......A4 | R539......B3 | TP8......B5 | |
| C140......B4 | C420......E5 | D302......D4 | IC852......D2 | P801A......G1 | R39......C2 | R156......A4 | R540......A3 | TP9......B4 | |
| C141......B4 | C421......E5 | D401......G4 | IC853......D2 | P801B......G1 | R40......C2 | R157......A4 | R541......A3 | TP10......B5 | |
| C142......B4 | C422......E5 | D402......G4 | IC854......D2 | P802A......E1 | R41......D1 | R158......B5 | R601......A2 | TP11......B5 | |
| C145......A4 | C517......A3 | D403......F4 | IC855......D2 | P802B......E1 | R42......D1 | R181......B3 | R602......A2 | TP12......B4 | |
| C147......B4 | C518......A3 | D404......E5 | IC856......D3 | PA02......F1 | R43......G1 | R201......C5 | R603......A3 | TP13......B4 | |
| C148......B4 | C519......A3 | D405......F5 | JK201......C5 | Q02......B3 | R44......F1 | R202......C5 | R604......A3 | TU101......A5 | |
| C149......C4 | C520......B3 | D406......E4 | JK202......D5 | Q03......C3 | R46......C1 | R203......B5 | R605......A3 | VD801......G1 | |
| C181......B3 | C601......A1 | D407......D4 | JK203......C1 | Q04......C3 | R48......C2 | R204......C5 | R606......A2 | VR121......B4 | |
| C182......B3 | C602......A2 | D408......E5 | JP1......A3 | Q05......D1 | R49......C1 | R205......C5 | R607......A1 | VR122......B5 | |
| C183......B3 | C603......A2 | D412......E5 | JP2......A2 | Q06......E1 | R50......C1 | R206......B5 | R608......A2 | X01......C1 | |

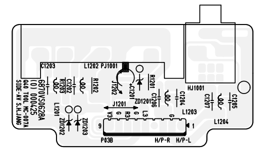
## CPT



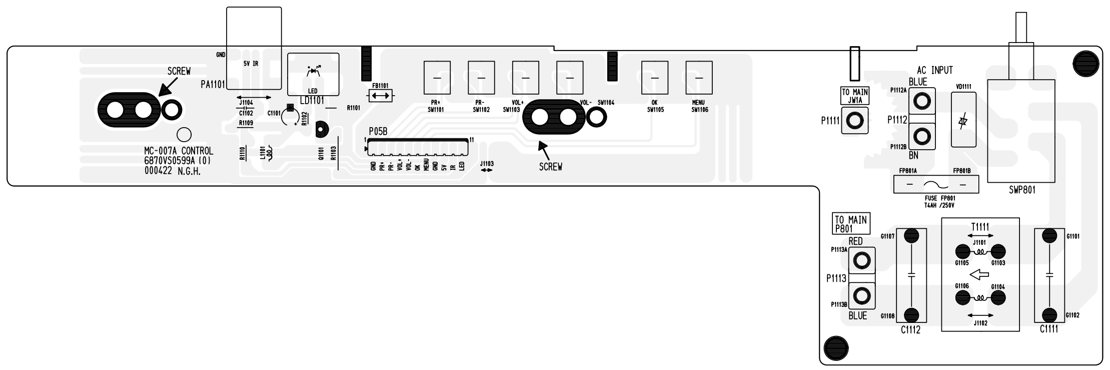
## SIDE AV(Q26)



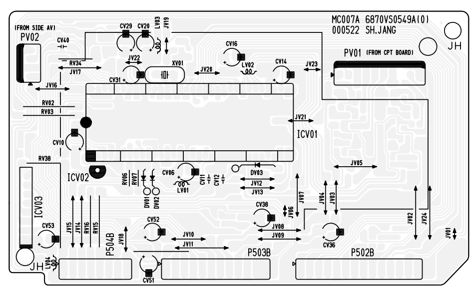
## SIDE AV(29Q40)



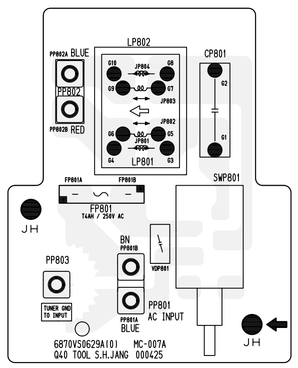
## CONTROL(Q26)



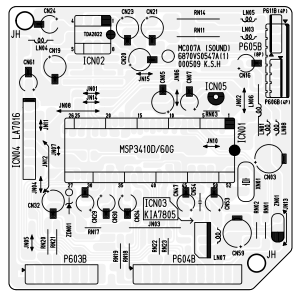
## VCD



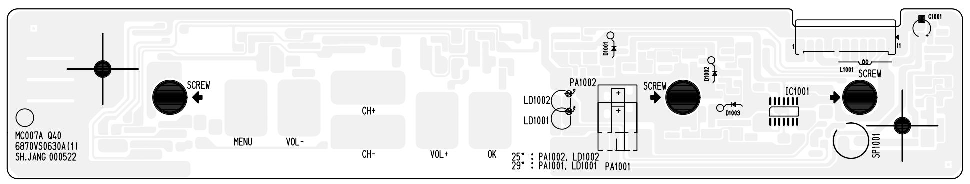
## POWER(29Q40)



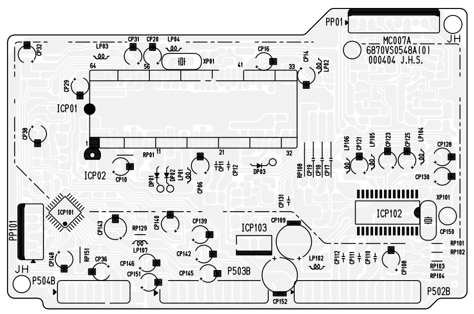
## SOUND



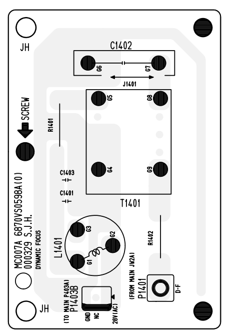
## SOFT-TOUCH(29Q40)



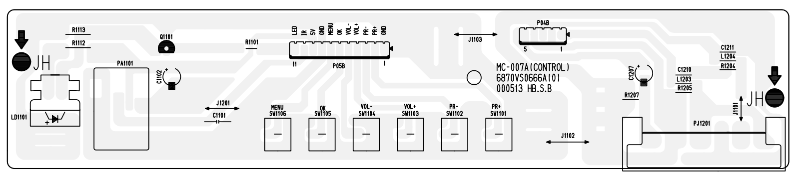
## VCD & PIP



## D-FOCUS(FLAT)

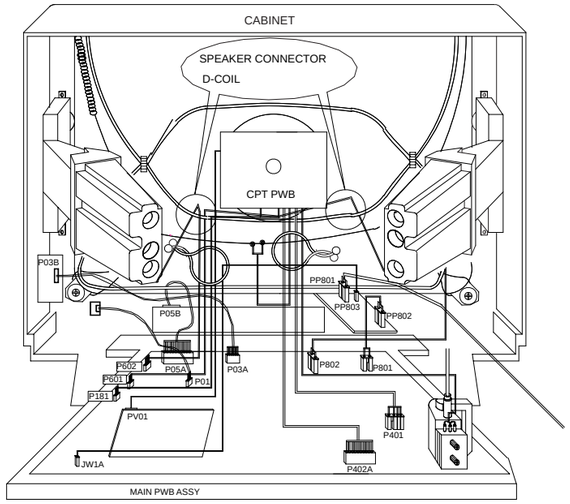


## CONTROL(25H36)

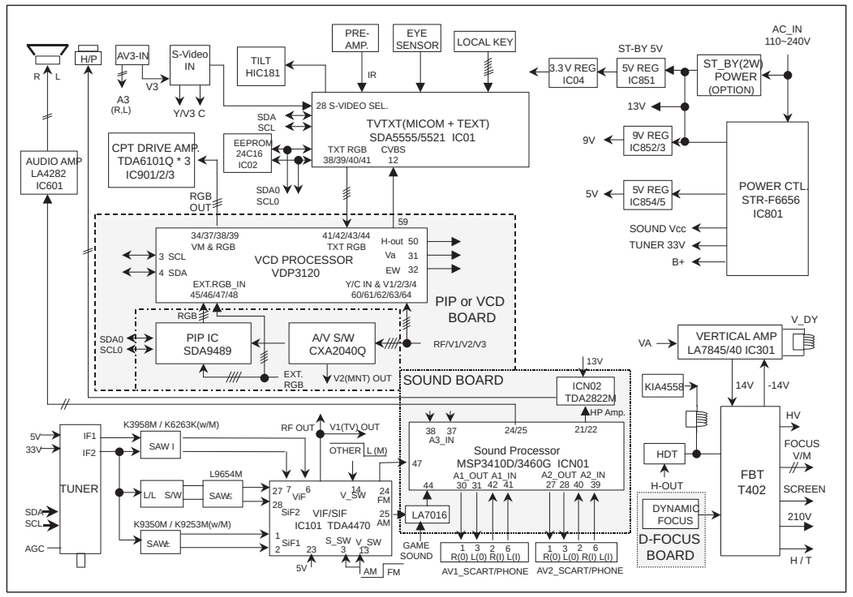


**Service Sheet of MC-007A**
**P/N: 3854VA0071A-S1**
**2000.06.15**

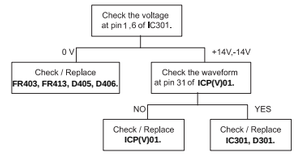
## WIRING DIAGRAM



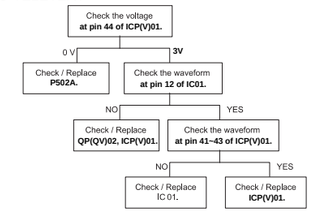

## BLOCK DIAGRAM



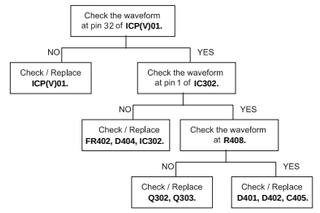

## NO VERTICAL DEFLECTION


Check the voltage at pin 1 ,6 of IC301.
0 V
+14V,-14V
Check / Replace FR403, FR413, D405, D406.
Check the waveform at pin 31 of ICP(V)01.
NO
YES
Check / Replace ICP(V)01.
Check / Replace IC301, D301.

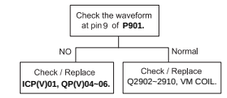
## NO TELETEXT


Check the voltage at pin 44 of ICP(V)01.
0 V
3V
Check / Replace P502A.
Check the waveform at pin 12 of IC01.
NO
YES
Check / Replace QP(QV)02, ICP(V)01.
Check the waveform at pin 41~43 of ICP(V)01.
Check / Replace IC 01.
Check / Replace ICP(V)01.

## BARREL DISTORTION

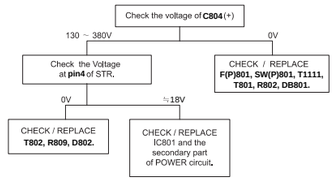



## VM DON'T WORKING

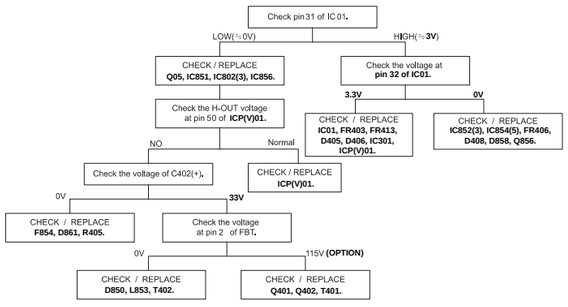



## TROUBLESHOOTING GUIDE

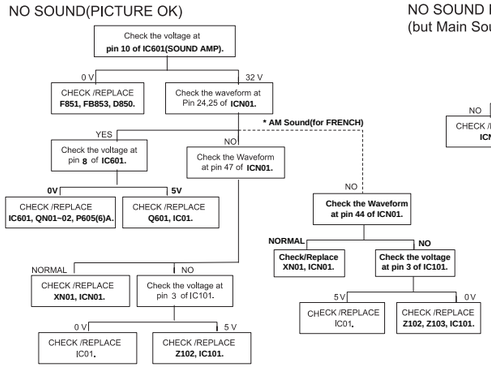
### NO POWER (NOT WORKING SMPS)


Check the voltage of C804(+)
130 ~ 380V
0V
Check the Voltage at pin4 of STR.
CHECK / REPLACE F(P)801, SW(P)801, T1111, T801, R802, DB801.
0V
≒18V
CHECK / REPLACE T802, R809, D802.
CHECK / REPLACE IC801 and the secondary part of POWER circuit.

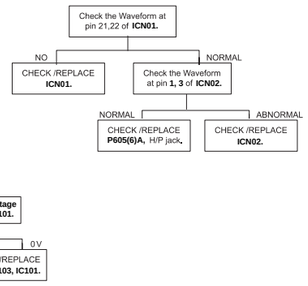
### NO POWER ON BUT SMPS WORKING


Check pin 31 of IC 01.
LOW(≒0V)
HIGH(≒3V)
CHECK / REPLACE Q05, IC851, IC802(3), IC856.
Check the voltage at pin 32 of IC01.
Check the H-OUT voltage at pin 50 of ICP(V)01.
3.3V
0V
CHECK / REPLACE IC01, FR403, FR413, D405, D406, IC301, ICP(V)01.
CHECK / REPLACE IC852(3), IC854(5), FR406, D408, D858, Q856.
NO
Normal
Check the voltage of C402(+).
CHECK / REPLACE ICP(V)01.
0V
33V
CHECK / REPLACE F854, D861, R405.
Check the voltage at pin 2 of FBT.
0V
115V (OPTION)
CHECK / REPLACE D850, L853, T402.
CHECK / REPLACE Q401, Q402, T401.

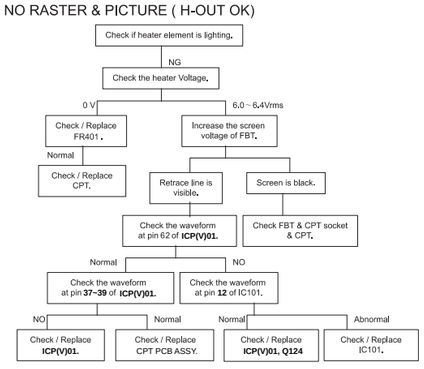
### NO SOUND(PICTURE OK)



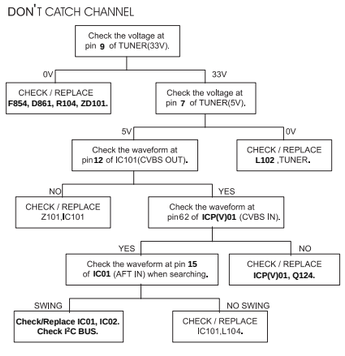

### NO SOUND FROM H/P jack(OPTION) (but Main Sound OK)



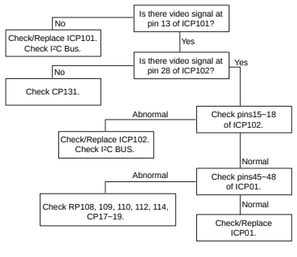

### NO RASTER & PICTURE ( H-OUT OK)




### DON'T CATCH CHANNEL


Check the voltage at pin 9 of TUNER(33V).
0V
33V
CHECK / REPLACE F854, D861, R104, ZD101.
Check the voltage at pin 7 of TUNER(5V).
5V
0V
Check the waveform at pin12 of IC101(CVBS OUT).
CHECK / REPLACE L102 ,TUNER.
NO
YES
CHECK / REPLACE Z101,IC101
Check the waveform at pin62 of ICP(V)01 (CVBS IN).
YES
NO
Check the waveform at pin 15 of IC01 (AFT IN) when searching.
CHECK / REPLACE ICP(V)01, Q124.
SWING
NO SWING
Check/Replace IC01, IC02. Check I²C BUS.
CHECK / REPLACE IC101,L104.

### NO PIP




**Service Sheet of MC-007A**
**P/N: 3854VA0071A-S2**
**2000.06.15**

# SVC. SHEET : 3854VA0071A-S1
# 3854VA0071A-S2